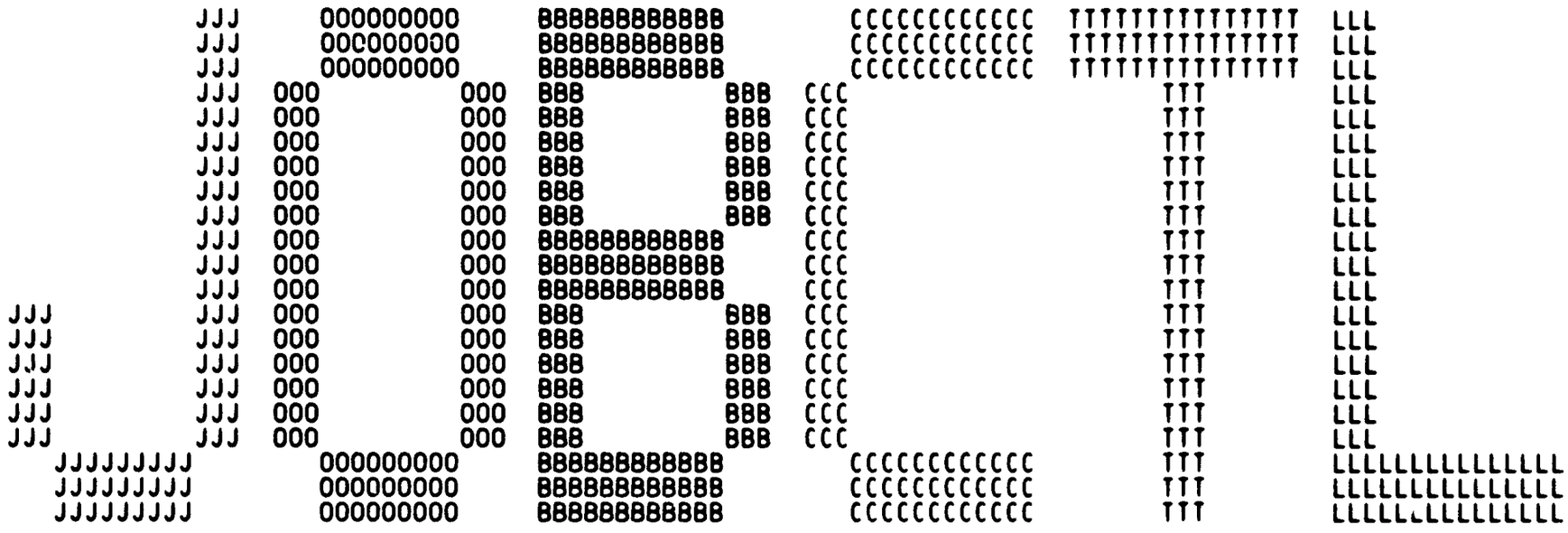

_$2

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  GGGGGGGG  EEEEEEEEEE  TTTTTTTTTT    QQQQQQ    UU      UU    IIIIII
GG          EE              TT      QQ      QQ  UU      UU      II
GG          EE              TT      QQ      QQ  UU      UU      II
GG          EE              TT      QQ      QQ  UU      UU      II
GG          EE              TT      QQ      QQ  UU      UU      II
GG          EEEEEEEE        TT      QQ      QQ  UU      UU      II
GG          EEEEEEEE        TT      QQ      QQ  UU      UU      II
GG  GGGGGG  EE              TT      QQ  QQ  QQ  UU      UU      II
GG  GGGGGG  EE              TT      QQ  QQ  QQ  UU      UU      II
GG      GG  EE              TT      QQ    QQ    UU      UU      II          ....
GG      GG  EE              TT      QQ    QQ    UU      UU      II          ....
  GGGGGG    EEEEEEEEEE      TT        QQQQ  QQ  UUUUUUUUUU    IIIIII        ....
  GGGGGG    EEEEEEEEEE      TT        QQQQ  QQ  UUUUUUUUUU    IIIIII        ....


LL              IIIIII      SSSSSSSS
LL              IIIIII      SSSSSSSS
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LLLLLLLLLL      IIIIII    SSSSSSSS
LLLLLLLLLL      IIIIII    SSSSSSSS
```

```
;     1        0001  0 MODULE GETQUI   (%TITLE '$GETQUI service'
;     2        0002  0                  IDENT = 'V04-001'
;     3        0003  0                  ) =
;     4        0004  1 BEGIN
;     5        0005  1
;     6        0006  1 !
;     7        0007  1 !*****************************************************************************
;     8        0008  1 !*                                                                           *
;     9        0009  1 !*  COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                 *
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;    19        0019  1 !*                                                                           *
;    20        0020  1 !*  THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE   *
;    21        0021  1 !*  AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT   *
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;    23        0023  1 !*                                                                           *
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;    25        0025  1 !*  SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                  *
;    26        0026  1 !*                                                                           *
;    27        0027  1 !*                                                                           *
;    28        0028  1 !*****************************************************************************
;    29        0029  1 !
;    30        0030  1
;    31        0031  1 !++
;    32        0032  1 ! FACILITY:
;    33        0033  1 !       Job controller.
;    34        0034  1 !
;    35        0035  1 ! ABSTRACT:
;    36        0036  1 !       This module contains the routines that implement the $GETQUI service.
;    37        0037  1 !
;    38        0038  1 ! ENVIRONMENT:
;    39        0039  1 !       VAX/VMS user and kernel mode.
;    40        0040  1 !--
;    41        0041  1 !
;    42        0042  1 ! AUTHOR: M. Jack, CREATION DATE: 16-Feb-1982
;    43        0043  1 !
;    44        0044  1 ! MODIFIED BY:
;    45        0045  1 !
;    46        0046  1 !       V04-001 JAK0236         J A Krycka      14-Sep-1984
;    47        0047  1 !               Collect more diagnostic information.
;    48        0048  1 !
;    49        0049  1 !       V03-011 JAK0229         J A Krycka      24-Aug-1984
;    50        0050  1 !               Collect additional diagnostic information.
;    51        0051  1 !
;    52        0052  1 !       V03-010 JAK0220         J A Krycka      18-Jul-1984
;    53        0053  1 !               Add support for SJC$_PAGINATE and SJC$_NOPAGINATE item codes
;    54        0054  1 !               for queue level operations.
;    55        0055  1 !
;    56        0056  1 !       V03-009 JAK0219         J A Krycka      17-Jul-1984
;    57        0057  1 !               Track changes in JOBCTLDEF.REQ and add QUI$_RESERVED_xxx codes.
```

```
;    58          0058  1 !
;    59          0059  1 !       V03-008 KPL0001         P Lieberwirth    9-Jul-1984
;    60          0060  1 !               Protect QUI_DISPLAY_FILE against common form of corrupted queue
;    61          0061  1 !               file by gracefully handling case where SJH is corrupt and has
;    62          0062  1 !               a zero FILE_LIST pointer.  Note: Other changes made at this
;    63          0063  1 !               time in other modules will reduce frequency of this corruption.
;    64          0064  1 !
;    65          0065  1 !       V03-007 JAK0213         J A Krycka      18-May-1984
;    66          0066  1 !               Use newly created LCK$M_NODLCKBLK (no deadlock on blocking AST)
;    67          0067  1 !               option on enqueue service calls that specify a blocking AST
;    68          0068  1 !               routine that will immediately relinquish the lock.
;    69          0069  1 !
;    70          0070  1 !       V03-006 JAK0211         J A Krycka      14-May-1984
;    71          0071  1 !               Continuation of V03-005.
;    72          0072  1 !
;    73          0073  1 !       V03-005 JAK0210         J A Krycka      10-May-1984
;    74          0074  1 !               Conditionally set ROP record locking options.
;    75          0075  1 !
;    76          0076  1 !       V03-004 JAK0209         J A Krycka      09-May-1984
;    77          0077  1 !               Log diagnostic information in DIAG_TRACE vector.
;    78          0078  1 !
;    79          0079  1 !       V03-003 GRR0004         Gregory R. Robert       27-Sep-1983
;    80          0080  1 !               Synchronize AST level use of QUEUE_RAB with non-AST level.
;    81          0081  1 !
;    82          0082  1 !       V03-002 MLJ0118         Martin L. Jack, 23-Aug-1983
;    83          0083  1 !               Change field names, update for symbiont changes, implement
;    84          0084  1 !               current batch job functions.
;    85          0085  1 !
;    86          0086  1 !       V03-001 MLJ0115         Martin L. Jack, 30-Jul-1983
;    87          0087  1 !               Changes for job controller baselevel.
;    88          0088  1 !
;    89          0089  1 !**
```

```
;    91          0090  1 REQUIRE 'SRC$:JOBCTLDEF';
;    92          1131  1
;    93          1132  1
;    94          1133  1 FORWARD ROUTINE
;    95          1134  1         GETQUI_LOCK:                    NOVALUE,
;    96          1135  1         GETQUI_UNLOCK:                  NOVALUE,
;    97          1136  1         GETQUI_SYNCHRONIZE:             NOVALUE,
;    98          1137  1         GETQUI_RELEASE:                 NOVALUE,
;    99          1138  1         UPDATE_GETQUI_LOCKS:            NOVALUE,
;   100          1139  1         UPDATE_GETQUI_DATA:             NOVALUE,
;   101          1140  1         GETQUI_BLOCKING_AST:            NOVALUE,
;   102          1141  1         WILD_SEARCH_NAME,
;   103          1142  1         RETURN_PARAMETERS:              NOVALUE,
;   104          1143  1         RETURN_RESULT,
;   105          1144  1         QUI_CANCEL_OPERATION,
;   106          1145  1         QUI_DISPLAY_CHARACTERISTIC,
;   107          1146  1         QUI_DISPLAY_FILE,
;   108          1147  1         QUI_DISPLAY_FORM,
;   109          1148  1         QUI_DISPLAY_JOB,
;   110          1149  1         QUI_DISPLAY_QUEUE,
;   111          1150  1         QUI_RESERVED_FUNC_1,
;   112          1151  1         QUI_RESERVED_FUNC_2,
;   113          1152  1         QUI_TRANSLATE_QUEUE,
;   114          1153  1         PROCESS_ONE_OPTION,
;   115          1154  1         PROCESS_GETQUI_ITEM_LIST,
;   116          1155  1         FIND_GQC,
;   117          1156  1         GETQUI_SERVICE,
;   118          1157  1         DELETE_GETQUI_CONTEXT:          NOVALUE,
;   119          1158  1         DELETE_OPEN_GETQUIS:            NOVALUE;
;   120          1159  1
;   121          1160  1
;   122          1161  1 EXTERNAL ROUTINE
;   123          1162  1         ALLOCATE_MEMORY,
;   124          1163  1         CHECK_R_ACCESS,
;   125          1164  1         COMPLETE_SRB_OUTPUT_ITEM:       NOVALUE,
;   126          1165  1         CREATE_SRB:                     NOVALUE,
;   127          1166  1         DEALLOCATE_MEMORY:              NOVALUE,
;   128          1167  1         FETCH_VARIABLE_DATA:            NOVALUE,
;   129          1168  1         FIND_PROCESS_DATA:              L_OUTPUT_3,
;   130          1169  1         LOCATE_SRB_OUTPUT_ITEM,
;   131          1170  1         LOCK_QUEUE_FILE:                NOVALUE,
;   132          1171  1         READ_RECORD,
;   133          1172  1         RELEASE_RECORD:                 NOVALUE,
;   134          1173  1         SEND_SERVICE_RESPONSE_MESSAGE:  NOVALUE,
;   135          1174  1         SIGNAL_FILE_ERROR:              NOVALUE,
;   136          1175  1         SYMBIONT_COMPLETED_BLOCKS,
;   137          1176  1         UNLOCK_QUEUE_FILE:              NOVALUE,
;   138          1177  1         VALIDATE_OBJECT_NAME;
;   139          1178  1
;   140          1179  1
;   141          1180  1 LINKAGE
;   142          1181  1         FMG$MATCH_NAME_LINKAGE =
;   143          1182  1             JSB(REGISTER=2, REGISTER=3, REGISTER=4, REGISTER=5);
;   144          1183  1
;   145          1184  1
;   146          1185  1 EXTERNAL ROUTINE
;   147          1186  1         FMG$MATCH_NAME: FMG$MATCH_NAME_LINKAGE ADDRESSING_MODE(GENERAL);
```

```
;  148          1187  1
;  149          1188  1
;  150          1189  1 BIND
;  151          1190  1         VALUE_SEARCH_FLAGS =
;  152          1191  1             VALUE_GETQUI_BASE + QUI$_SEARCH_FLAGS * ODSC_S_ENTRY:
;  153          1192  1             BBLOCK,
;  154          1193  1         VALUE_SEARCH_NAME =
;  155          1194  1             VALUE_GETQUI_BASE + QUI$_SEARCH_NAME * ODSC_S_ENTRY:
;  156          1195  1             BBLOCK,
;  157          1196  1         VALUE_SEARCH_NUMBER =
;  158          1197  1             VALUE_GETQUI_BASE + QUI$_SEARCH_NUMBER * ODSC_S_ENTRY;
;  159          1198  1
;  160          1199  1
;  161          1200  1 MACRO
;  162        M 1201  1         GENERATE_TABLE[] =
;  163          1202  1             UPLIT(GENERATE_TABLE_1(%REMAINING), BYTE(0)) %,
;  164          1203  1
;  165        M 1204  1         GENERATE_TABLE_1[A,B,C,D,E,F]=
;  166          1205  1             BYTE(A, B, C, D), WORD(E, F) %;
;  167          1206  1
;  168          1207  1
;  169          1208  1 MACRO
;  170          1209  1         B_ITEM_CODE=            0,0,8,0 %,      ! $GETQUI item code
;  171          1210  1         B_PARAMETER=            1,0,8,0 %,      ! Parameter list offset to block
;  172          1211  1         B_CASE=                 2,0,8,0 %,      ! Case index for conversion
;  173          1212  1         V_PROTECTED=            3,0,1,0 %,      ! Item is protected
;  174          1213  1         W_BYTE_OFFSET=          4,0,16,0 %,     ! Byte offset of field
;  175          1214  1         W_SIZE=                 6,0,16,0 %;     ! Size of field
;  176          1215  1
;  177          1216  1
;  178          1217  1 LITERAL
;  179          1218  1         K_COPY_ASCIC=           0,              ! Copy ASCIC string
;  180          1219  1         K_COPY_FORM_NAME=       1,              ! Copy form name
;  181          1220  1         K_COPY_QUEUE_NAME=      2,              ! Copy queue name
;  182          1221  1         K_COPY_SDSC=            3,              ! Copy short descriptor
;  183          1222  1         K_COPY_TRIMMED=         4,              ! Copy trimmed value
;  184          1223  1         K_COPY_VALUE=           5,              ! Copy value
;  185          1224  1         K_COPY_VARIABLE=        6,              ! Copy variable field
;  186          1225  1         K_COMPLETED_BLOCKS=     7,              ! COMPLETED_BLOCKS item
;  187          1226  1         K_FILE_FLAGS=           8,              ! FILE_FLAGS item
;  188          1227  1         K_FILE_STATUS=          9,              ! FILE_STATUS item
;  189          1228  1         K_FORM_FLAGS=           10,             ! FORM_FLAGS item
;  190          1229  1         K_GENERIC_TARGET=       11,             ! GENERIC_TARGET item
;  191          1230  1         K_INTERVENING_BLOCKS=   12,             ! INTERVENING_BLOCKS item
;  192          1231  1         K_INTERVENING_JOBS=     13,             ! INTERVENING_JOBS item
;  193          1232  1         K_JOB_FLAGS=            14,             ! JOB_FLAGS item
;  194          1233  1         K_JOB_STATUS=           15,             ! JOB_STATUS item
;  195          1234  1         K_QUEUE_FLAGS=          16,             ! QUEUE_FLAGS item
;  196          1235  1         K_QUEUE_STATUS=         17,             ! QUEUE_STATUS item
;  197          1236  1
;  198          1237  1         K_REC_1=                5,              ! Argument number
;  199          1238  1         K_REC_2=                7,              !     of block pointers
;  200          1239  1         K_REC_3=                9,              !
;  201          1240  1
;  202          1241  1         K_ENTRY_SIZE=           8;              ! Size of entry
;  203          1242  1
;  204          1243  1
```

```
;  205     1244  1 MACRO
;  206     1245  1         GQC_LINK=               0,0,32,0 %,     ! Link to next block
;  207     1246  1         GQC_PID=                4,0,32,0 %,     ! PID of requestor
;  208     1247  1         GQC_FLAGS=              8,0,32,0 %,     ! Flags
;  209     1248  1         GQC_WILDCARDS=          8,0,4,0 %,      ! Wildcard operation in progress
;  210     1249  1         GQC_SCX_WILD=           8,0,1,0 %,      ! Wildcard characteristic
;  211     1250  1         GQC_SFX_WILD=           8,1,1,0 %,      ! Wildcard form
;  212     1251  1         GQC_SQX_WILD=           8,2,1,0 %,      ! Wildcard queue
;  213     1252  1         GQC_FLG_WILD=           8,3,1,0 %,      ! SEARCH_FLAG forces wildcard
;  214     1253  1         GQC_SCX_NO_ADV=         8,4,1,0 %,      ! Inhibit advancing context
;  215     1254  1         GQC_SFX_NO_ADV=         8,5,1,0 %,      !     before a wildcard scan
;  216     1255  1         GQC_SQX_NO_ADV=         8,6,1,0 %,      !     since a list deletion has
;  217     1256  1         GQC_SJH_NO_ADV=         8,7,1,0 %,      !     already done so
;  218     1257  1         GQC_SCX_N=              12,0,32,0 %,    ! Record number of SCX
;  219     1258  1         GQC_SCE_N=              16,0,32,0 %,    ! Byte offset of SCE
;  220     1259  1         GQC_SFX_N=              20,0,32,0 %,    ! Record number of SFX
;  221     1260  1         GQC_SFE_N=              24,0,32,0 %,    ! Byte offset of SFE
;  222     1261  1         GQC_SQX_N=              28,0,32,0 %,    ! Record number of SQX
;  223     1262  1         GQC_SQE_N=              32,0,32,0 %,    ! Byte offset of SQE
;  224     1263  1         GQC_SMQ_N=              36,0,32,0 %,    ! Record number of SMQ
;  225     1264  1         GQC_SJH_Q=              40,0,32,0 %,    ! Queue type being searched
;  226     1265  1         GQC_SJH_N=              44,0,32,0 %,    ! Record number of SJH
;  227     1266  1         GQC_SQR_N=              48,0,32,0 %,    ! Record number of SQR
;  228     1267  1         GQC_INTERVENING_BLOCKS= 52,0,32,0 %,    ! Intervening pending blocks
;  229     1268  1         GQC_INTERVENING_JOBS=   56,0,32,0 %;    ! Intervening pending jobs
;  230     1269  1
;  231     1270  1
;  232     1271  1 LITERAL
;  233     1272  1         GQC_K_LENGTH=           60,             ! Length of structure
;  234     1273  1         GQC_K_NONE=             0,              ! Queue search beginning
;  235     1274  1         GQC_K_CURRENT=          1,              ! Searching current queue
;  236     1275  1         GQC_K_PENDING=          2,              ! Searching pending queue
;  237     1276  1         GQC_K_TIMER=            3,              ! Searching timer queue
;  238     1277  1         GQC_K_HOLD=             4,              ! Searching hold queue
;  239     1278  1         GQC_K_DONE=             5;              ! Queue search done
;  240     1279  1
;  241     1280  1
;  242     1281  1 MACRO
;  243     1282  1         GQL_LINK=               0,0,32,0 %,     ! Link to next
;  244     1283  1         GQL_RECNO=              4,0,32,0 %,     ! Record number
;  245     1284  1         GQL_BOFF=               8,0,16,0 %,     ! Byte offset
;  246     1285  1         GQL_REFCOUNT=           10,0,16,0 %,    ! Reference count
;  247     1286  1         GQL_LKID=               12,0,32,0 %;    ! Lock ID of lock
;  248     1287  1
;  249     1288  1
;  250     1289  1 LITERAL
;  251     1290  1         GQL_K_LENGTH=           16;             ! Size of GQL entry
;  252     1291  1
;  253     1292  1
;  254     1293  1 BUILTIN
;  255     1294  1         LOCC,
;  256     1295  1         TESTBITCC;
```

```
;  258          1296  1 ROUTINE GETQUI_LOCK(REC_N,REC): NOVALUE=
;  259          1297  1
;  260          1298  1 !++
;  261          1299  1 !
;  262          1300  1 ! FUNCTIONAL DESCRIPTION:
;  263          1301  1 !       This routine locks a specified record against modification.
;  264          1302  1 !
;  265          1303  1 ! INPUT PARAMETERS:
;  266          1304  1 !       REC_N           - Record number of record.
;  267          1305  1 !       REC             - Address of record.
;  268          1306  1 !
;  269          1307  1 ! IMPLICIT INPUTS:
;  270          1308  1 !       NONE
;  271          1309  1 !
;  272          1310  1 ! OUTPUT PARAMETERS:
;  273          1311  1 !       NONE
;  274          1312  1 !
;  275          1313  1 ! IMPLICIT OUTPUTS:
;  276          1314  1 !       NONE
;  277          1315  1 !
;  278          1316  1 ! ROUTINE VALUE:
;  279          1317  1 !       NONE
;  280          1318  1 !
;  281          1319  1 ! SIDE EFFECTS:
;  282          1320  1 !       NONE
;  283          1321  1 !
;  284          1322  1 !--
;  285          1323  1
;  286          1324  2 BEGIN
;  287          1325  2 LOCAL
;  288          1326  2         PREV,                           ! Pointer to previous forward link
;  289          1327  2         GQL:            REF BBLOCK,     ! Pointer to $GETQUI lock block
;  290          1328  2         RESNAM:         BBLOCK[6],      ! Resource name
;  291          1329  2         DESC:           VECTOR[2],      ! Descriptor for resource name
;  292          1330  2         LKSB:           BBLOCK[8],      ! Lock status block
;  293          1331  2         STATUS;                         ! Status return
;  294          1332  2
;  295          1333  2
;  296          1334  2 ! Ensure that the record number constitutes a valid lock.
;  297          1335  2 !
;  298          1336  2 IF .REC_N LEQU SQH$K_RECNO
;  299          1337  2 THEN
;  300          1338  2     RETURN;
;  301          1339  2
;  302          1340  2
;  303          1341  2 ! Construct the resource name from the record number and the byte offset.
;  304          1342  2 !
;  305          1343  2 RESNAM[0,0,32,0] = .REC_N;
;  306          1344  2 RESNAM[4,0,16,0] = .REC<0,9>;
;  307          1345  2
;  308          1346  2
;  309          1347  2 ! Search the active $GETQUI lock block list for the specified resource.
;  310          1348  2 !
;  311          1349  2 PREV = GQL_ACTIVE_LIST;
;  312          1350  2 WHILE ..PREV NEQ 0 DO
;  313          1351  3     BEGIN
;  314          1352  3     GQL = ..PREV;
```

```
;  315          1353  3      CASE CH$COMPARE(
;  316          1354  3          %ALLOCATION(RESNAM), GQL[GQL_RECNO],
;  317          1355  3          %ALLOCATION(RESNAM), RESNAM)
;  318          1356  3      FROM -1 TO 1 OF
;  319          1357  3          SET
;  320          1358  3
;  321          1359  3
;  322          1360  3          [-1]:
;  323          1361  3              EXITLOOP;
;  324          1362  3
;  325          1363  3
;  326          1364  3          [0]:
;  327          1365  4              BEGIN
;  328          1366  4              GQL[GQL_REFCOUNT] = .GQL[GQL_REFCOUNT] + 1;
;  329          1367  4              RETURN;
;  330          1368  3              END;
;  331          1369  3
;  332          1370  3
;  333          1371  3          [+1]:
;  334          1372  3              PREV = GQL[GQL_LINK];
;  335          1373  3
;  336          1374  3
;  337          1375  3          TES;
;  338          1376  2      END;
;  339          1377  2
;  340          1378  2
;  341          1379  2 ! If the lock block free list is empty, allocate a page of memory
;  342          1380  2 ! and transform it into free lock blocks.
;  343          1381  2 !
;  344          1382  2 IF .GQL_FREE_LIST EQL 0
;  345          1383  2 THEN
;  346          1384  3      BEGIN
;  347          1385  3      GQL_FREE_LIST = ALLOCATE_MEMORY();
;  348          1386  3      DECRA P
;  349          1387  3      FROM .GQL_FREE_LIST+512-2*GQL_K_LENGTH TO .GQL_FREE_LIST BY GQL_K_LENGTH DO
;  350          1388  3          .P = .P + GQL_K_LENGTH;
;  351          1389  2      END;
;  352          1390  2
;  353          1391  2
;  354          1392  2 ! Remove a lock block from the free list and initialize it.
;  355          1393  2 !
;  356          1394  2 GQL = .GQL_FREE_LIST;
;  357          1395  2 GQL_FREE_LIST = .GQL[GQL_LINK];
;  358          1396  2 GQL[GQL_LINK] = ..PREV;
;  359          1397  2 .PREV = .GQL;
;  360          1398  2 GQL[GQL_RECNO] = .RESNAM[0,0,32,0];
;  361          1399  2 GQL[GQL_BOFF] = .RESNAM[4,0,16,0];
;  362          1400  2 GQL[GQL_REFCOUNT] = 1;
;  363          1401  2
;  364          1402  2
;  365          1403  2 ! Take a lock on the resource.
;  366          1404  2 !
;  367          1405  2 DESC[0] = %ALLOCATION(RESNAM);
;  368          1406  2 DESC[1] = RESNAM;
;  369        P 1407  2 STATUS = $ENQW(
;  370        P 1408  2      EFN=JBC$K_SYNC_EFN,
;  371        P 1409  2      LKMODE=LCK$K_PRMODE,
```

```
;  372        P 1410  2      LKSB=LKSB,
;  373        P 1411  2      RESNAM=DESC,
;  374        P 1412  2      FLAGS=LCK$M_NODLCKBLK,
;  375        P 1413  2      PARID=.(QUEUE_LOCK_LKSB[2]),
;  376        P 1414  2      ASTPRM=.GQL,
;  377           1415  2      BLKAST=GETQUI_BLOCKING_AST);
;  378           1416  2 IF .STATUS THEN STATUS = .LKSB[0,0,16,0];
;  379           1417  2 IF NOT .STATUS
;  380           1418  2 THEN
;  381           1419  2      SIGNAL(JBC$_COMREMJBC OR STS$K_ERROR, 0, .STATUS);
;  382           1420  2
;  383           1421  2
;  384           1422  2 ! Save the lock ID.
;  385           1423  2 !
;  386           1424  2 GQL[GQL_LKID] = .LKSB[4,0,32,0];
;  387           1425  1 END;


                                .TITLE  GETQUI $GETQUI service
                                .IDENT  \V04-001\

                                .PSECT  COMMON,NOEXE,  OVR,2

00000 DIAG_STORAGE_BASE:
                        .BLKB   0
00000 DIAG_TRACE:
                        .BLKB   96
00060 DIAG_COUNT:
                        .BLKB   96
000C0 DIAG_FLAGS:
                        .BLKB   4
000C4 WORK_AREA:
                        .BLKB   44
000F0 SNDJBC_COUNT:
                        .BLKB   132
00174 GETQUI_COUNT:
                        .BLKB   40
0019C SNDACC_COUNT:
                        .BLKB   28
001B8 SNDSMB_COUNT:
                        .BLKB   72
00200 DIAG_STORAGE_END:
                        .BLKB   0
00200 FLAGS:    .BLKB   4
00204 IMAGE_DUMP_STSFLG:
                        .BLKB   4
00208 THIS_SYSID:
                        .BLKB   6
0020E           .BLKB   2
00210 CUR_TIME:
                        .BLKB   8
00218 HOURLY_TIME:
                        .BLKB   8
00220 HOURLY_PARAMS:
                        .BLKB   20
00234 SYMBIONT_COUNT:
                        .BLKB   4
```

```
00238 QUEUE_REFERENCE_COUNT:
                .BLKB   4
0023C MBX_MESSAGE_COUNT:
                .BLKB   4
00240 MBX:      .BLKB   4
00244 MBX_END:  .BLKB   4
00248 MEMORY_FREE_QUEUES:
                .BLKB   40
00270 NONAST_WORK_QUEUE:
                .BLKB   8
00278 BCB_FREE_LIST:
                .BLKB   4
0027C BCB_ACTIVE_LIST:
                .BLKB   4
00280 GQL_FREE_LIST:
                .BLKB   4
00284 GQL_ACTIVE_LIST:
                .BLKB   4
00288 OPEN_GETQUI_LIST:
                .BLKB   4
0028C PROCESS_DATA_LIST:
                .BLKB   4
00290 SYMBIONT_CONTROL:
                .BLKB   4
00294 SPARE_AREA:
                .BLKB   12
002A0 REMOTE_REQUEST_LKSB:
                .BLKB   8
002A8 QUEUE_FILE_LKSB:
                .BLKB   8
002B0 QUEUE_LOCK_LKSB:
                .BLKB   8
002B8 RSP:      .BLKB   8
002C0 JBC_PRIORITY:
                .BLKB   4
002C4 JBC_PRIVILEGES:
                .BLKB   8
002CC JBC_QUOTAS:
                .BLKB   66
0030E           .BLKB   2
00310 JBC_UIC:  .BLKB   4
00314 QUEUE_FAB:
                .BLKB   80
00364 QUEUE_RAB:
                .BLKB   68
003A8 QUEUE_NAM:
                .BLKB   96
00408 QUEUE_XAB:
                .BLKB   88
00460 QUEUE_RSA:
                .BLKB   255
0055F           .BLKB   1
00560 QUEUE_ALQ:
                .BLKB   4
00564 QUEUE_MBF:
                .BLKB   1
00565           .BLKB   3
```

```
00568 ACCOUNTING_FABS:
                .BLKB   8
00570 ACCOUNTING_RABS:
                .BLKB   8
00578 ACCOUNT_FAB_A:
                .BLKB   80
005C8 ACCOUNT_RAB_A:
                .BLKB   68
0060C ACCOUNT_NAM_A:
                .BLKB   96
0066C ACCOUNT_RSA_A:
                .BLKB   255
0076B           .BLKB   1
0076C ACCOUNT_FAB_B:
                .BLKB   80
007BC ACCOUNT_RAB_B:
                .BLKB   68
00800 ACCOUNT_NAM_B:
                .BLKB   96
00860 ACCOUNT_RSA_B:
                .BLKB   255
0095F           .BLKB   1
00960 DIAG_FAB:
                .BLKB   80
009B0 DIAG_RAB:
                .BLKB   68
009F4 MBX_CHAN:
                .BLKB   4
009F8 MBX_IOSB:
                .BLKB   8
00A00 MBX_BUFFER:
                .BLKB   1024
00E00 VALUE_STORAGE_BASE:
                .BLKB   0
00E00 ITEM_PRESENT:
                .BLKB   32
00E20 VALUE_GETQUI_BASE:
                .BLKB   0
00E20 VALUE_ACCOUNTING_MESSAGE:
                .BLKB   6
00E26 VALUE_ACCOUNTING_TYPES:
                .BLKB   4
00E2A VALUE_AFTER_TIME:
                .BLKB   8
00E32 VALUE_ALIGNMENT_PAGES:
                .BLKB   1
00E33 VALUE_BASE_PRIORITY:
                .BLKB   1
00E34 VALUE_BATCH_INPUT:
                .BLKB   6
00E3A VALUE_BATCH_OUTPUT:
                .BLKB   10
00E44 VALUE_BUFFER_COUNT:
                .BLKB   1
00E45 VALUE_CHARACTERISTIC_NAME:
                .BLKB   6
00E4B VALUE_CHARACTERISTIC_NUMBER:
```

```
                        .BLKB   1
00E4C VALUE_CHARACTERISTICS:
                        .BLKB   16
00E5C VALUE_CHECKPOINT_DATA:
                        .BLKB   6
00E62 VALUE_CLI:
                        .BLKB   6
00E68 VALUE_CPU_DEFAULT:
                        .BLKB   4
00E6C VALUE_CPU_LIMIT:
                        .BLKB   4
00E70 VALUE_DESTINATION_QUEUE:
                        .BLKB   8
00E78 VALUE_DEVICE_NAME:
                        .BLKB   6
00E7E VALUE_ENTRY_NUMBER:
                        .BLKB   4
00E82 VALUE_ENTRY_NUMBER_OUTPUT:
                        .BLKB   10
00E8C VALUE_EXTEND_QUANTITY:
                        .BLKB   2
00E8E VALUE_FILE_COPIES:
                        .BLKB   1
00E8F VALUE_FILE_IDENTIFICATION:
                        .BLKB   36
00EB3 VALUE_FILE_SETUP_MODULES:
                        .BLKB   6
00EB9 VALUE_FILE_SPECIFICATION:
                        .BLKB   6
00EBF VALUE_FIRST_PAGE:
                        .BLKB   4
00EC3 VALUE_FORM_DESCRIPTION:
                        .BLKB   6
00EC9 VALUE_FORM_LENGTH:
                        .BLKB   1
00ECA VALUE_FORM_MARGIN_BOTTOM:
                        .BLKB   1
00ECB VALUE_FORM_MARGIN_LEFT:
                        .BLKB   2
00ECD VALUE_FORM_MARGIN_RIGHT:
                        .BLKB   2
00ECF VALUE_FORM_MARGIN_TOP:
                        .BLKB   1
00ED0 VALUE_FORM_NAME:
                        .BLKB   6
00ED6 VALUE_FORM_NUMBER:
                        .BLKB   4
00EDA VALUE_FORM:
                        .BLKB   8
00EE2 VALUE_FORM_SETUP_MODULES:
                        .BLKB   6
00EE8 VALUE_FORM_STOCK:
                        .BLKB   6
00EEE VALUE_FORM_WIDTH:
                        .BLKB   2
00EF0 VALUE_GENERIC_TARGET:
                        .BLKB   996
```

```
012D4 VALUE_JOB_COPIES:
                .BLKB   1
012D5 VALUE_JOB_LIMIT:
                .BLKB   1
012D6 VALUE_JOB_NAME:
                .BLKB   6
012DC VALUE_JOB_RESET_MODULES:
                .BLKB   6
012E2 VALUE_JOB_SIZE_MAXIMUM:
                .BLKB   4
012E6 VALUE_JOB_SIZE_MINIMUM:
                .BLKB   4
012EA VALUE_JOB_STATUS_OUTPUT:
                .BLKB   10
012F4 VALUE_LAST_PAGE:
                .BLKB   4
012F8 VALUE_LIBRARY_SPECIFICATION:
                .BLKB   6
012FE VALUE_LOG_QUEUE:
                .BLKB   8
01306 VALUE_LOG_SPECIFICATION:
                .BLKB   6
0130C VALUE_NOTE:
                .BLKB   6
01312 VALUE_OPERATOR_REQUEST:
                .BLKB   6
01318 VALUE_OWNER_UIC:
                .BLKB   4
0131C VALUE_PAGE_SETUP_MODULES:
                .BLKB   6
01322 VALUE_PARAMETER_1:
                .BLKB   6
01328 VALUE_PARAMETER_2:
                .BLKB   6
0132E VALUE_PARAMETER_3:
                .BLKB   6
01334 VALUE_PARAMETER_4:
                .BLKB   6
0133A VALUE_PARAMETER_5:
                .BLKB   6
01340 VALUE_PARAMETER_6:
                .BLKB   6
01346 VALUE_PARAMETER_7:
                .BLKB   6
0134C VALUE_PARAMETER_8:
                .BLKB   6
01352 VALUE_PRIORITY:
                .BLKB   1
01353 VALUE_PROCESSOR:
                .BLKB   6
01359 VALUE_PROTECTION:
                .BLKB   4
0135D VALUE_QUEUE:
                .BLKB   6
01363 VALUE_QUEUE_FILE_SPECIFICATION:
                .BLKB   6
01369 VALUE_RELATIVE_PAGE:
```

```
                        .BLKB   4
0136D VALUE_RESERVED_INPUT_1:
                        .BLKB   1
0136E VALUE_RESERVED_INPUT_2:
                        .BLKB   2
01370 VALUE_RESERVED_INPUT_3:
                        .BLKB   4
01374 VALUE_RESERVED_INPUT_4:
                        .BLKB   6
0137A VALUE_RESERVED_OUTPUT_1:
                        .BLKB   10
01384 VALUE_RESERVED_OUTPUT_2:
                        .BLKB   10
0138E VALUE_SEARCH_STRING:
                        .BLKB   6
01394 VALUE_SCSNODE_NAME:
                        .BLKB   6
0139A VALUE_WSDEFAULT:
                        .BLKB   2
0139C VALUE_WSEXTENT:
                        .BLKB   2
0139E VALUE_WSQUOTA:
                        .BLKB   2
013A0 VALUE_STORAGE_END:
                        .BLKB   0

        JBC$_CLOSEOUT=      266328
        JBC$_NOCMKRNL=      272388
        JBC$_NOOPER=        272532
        JBC$_NOSYSNAM=      272404
        JBC$_OPENIN=        266392
        JBC$_OPENOUT=       266400
        JBC$_READERR=       266416
        JBC$_WRITEERR=      266448
        VALUE_SEARCH_FLAGS= VALUE_GETQUI_BASE+760
        VALUE_SEARCH_NAME=  VALUE_GETQUI_BASE+770
        VALUE_SEARCH_NUMBER=VALUE_GETQUI_BASE+780
                        .EXTRN  ALLOCATE_MEMORY
                        .EXTRN  CHECK_R_ACCESS, COMPLETE_SRB_OUTPUT_ITEM
                        .EXTRN  CREATE_SRB, DEALLOCATE_MEMORY
                        .EXTRN  FETCH_VARIABLE_DATA
                        .EXTRN  FIND_PROCESS_DATA
                        .EXTRN  LOCATE_SRB_OUTPUT_ITEM
                        .EXTRN  LOCK_QUEUE_FILE
                        .EXTRN  READ_RECORD, RELEASE_RECORD
                        .EXTRN  SEND_SERVICE_RESPONSE_MESSAGE
                        .EXTRN  SIGNAL_FILE_ERROR
                        .EXTRN  SYMBIONT_COMPLETED_BLOCKS
                        .EXTRN  UNLOCK_QUEUE_FILE
                        .EXTRN  VALIDATE_OBJECT_NAME
                        .EXTRN  FMG$MATCH_NAME, SYS$ENQW

                        .PSECT  CODE,NOWRT,2

                007C 00000 GETQUI_LOCK:
                        .WORD   Save R2,R3,R4,R5,R6                     ; 1296
55 00000000'  EF  9E 00002      MOVAB   GQL_FREE_LIST, R5               ;
```

```
                                                5E        18 C2 00009          SUBL2   #24, SP
                                                01    04  AC D1 0000C          CMPL    REC_N, #1                                       ; 1336
                                                          01 1A 00010          BGTRU   1$
                                                             04 00012          RET
                                             10 AE      04  AC D0 00013 1$:     MOVL    REC_N, RESNAM                                   ; 1343
                50      08      AC                      09    00 EF 00018      EXTZV   #0, #9, REC, R0                                 ; 1344
                                             14 AE          50 B0 0001E          MOVW    R0, RESNAM+4
                                                56      04  A5 9E 00022          MOVAB   GQL_ACTIVE_LIST, PREV                           ; 1349
                                                            66 D5 00026 2$:      TSTL    (PREV)                                          ; 1350
                                                            16 13 00028          BEQL    4$
                                                54          66 D0 0002A          MOVL    (PREV), GQL                                     ; 1352
                        10      AE      04      A4          06 29 0002D          CMPC3   #6, 4(GQL), RESNAM                              ; 1354
                                                            06 1A 00033          BGTRU   3$
                                                            09 1F 00035          BLSSU   4$
                                                    0A      A4 B6 00037          INCW    10(GQL)                                         ; 1366
                                                               04 0003A          RET                                                     ; 1365
                                                56          54 D0 0003B 3$:      MOVL    GQL, PREV                                       ; 1372
                                                            E6 11 0003E          BRB     2$                                              ; 1350
                                                            65 D5 00040 4$:      TSTL    GQL_FREE_LIST                                   ; 1382
                                                            20 12 00042          BNEQ    7$
                                    00000000G               EF 00 FB 00044       CALLS   #0, ALLOCATE_MEMORY                             ; 1385
                                                            65 50 D0 0004B       MOVL    R0, GQL_FREE_LIST
                                50                          65 000001F0 8F C1 0004E  ADDL3   #496, GQL_FREE_LIST, P                  ; 1386
                                                            04 11 00056          BRB     6$
                                                60      10  A0 9E 00058 5$:     MOVAB   16(R0), (P)                                     ; 1388
                                                50          10 C2 0005C 6$       SUBL2   #16, P
                                                65          50 D1 0005F          CMPL    P, GQL_FREE_LIST
                                                            F4 1E 00062          BGEQU   5$
                                                54          65 D0 00064 7$:      MOVL    GQL_FREE_LIST, GQL                              ; 1394
                                                65          64 D0 00067          MOVL    (GQL), GQL_FREE_LIST                            ; 1395
                                                64          66 D0 0006A          MOVL    (PREV), (GQL)                                   ; 1396
                                                66          54 D0 0006D          MOVL    GQL, (PREV)                                     ; 1397
                                        04      A4      10  AE D0 00070          MOVL    RESNAM, 4(GQL)                                  ; 1398
                                        08      A4      14  AE B0 00075          MOVW    RESNAM+4, 8(GQL)                                ; 1399
                                        0A      A4          01 B0 0007A          MOVW    #1, 10(GQL)                                     ; 1400
                                        08      AE          06 D0 0007E          MOVL    #6, DESC                                        ; 1405
                                        0C      AE      10  AE 9E 00082          MOVAB   RESNAM, DESC+4                                  ; 1406
                                                            7E 7C 00087          CLRQ    -(SP)                                           ; 1415
                                                    0000V   CF 9F 00089          PUSHAB  GETQUI_BLOCKING_AST
                                                            54 DD 0008D          PUSHL   GQL
                                                            7E D4 0008F          CLRL    -(SP)
                                                        34  A5 DD 00091          PUSHL   QUEUE_LOCK_LKSB+4
                                                        20  AE 9F 00094          PUSHAB  DESC
                                                7E      0400 8F 3C 00097         MOVZWL  #1024, -(SP)
                                                        20  AE 9F 0009C          PUSHAB  LKSB
                                                            03 DD 0009F          PUSHL   #3
                                                            01 DD 000A1          PUSHL   #1
                                    00000000G           00 0B FB 000A3           CALLS   #11, SYS$ENQW
                                                        06 50 E9 000AA           BLBC    STATUS, 8$                                      ; 1416
                                                        50 6E 3C 000AD           MOVZWL  LKSB, STATUS
                                                        11 50 E8 000B0           BLBS    STATUS, 9$                                      ; 1417
                                                           50 DD 000B3 8$:       PUSHL   STATUS                                          ; 1419
                                                           7E D4 000B5           CLRL    -(SP)
                                                00048412   8F DD 000B7           PUSHL   #295954
                                    00000000G           00 03 FB 000BD           CALLS   #3, LIB$SIGNAL
                                            0C      A4      04  AE D0 000C4 9$:  MOVL    LKSB+4, 12(GQL)                                 ; 1424
                                                               04 000C9          RET                                                     ; 1425
```

; Routine Size: 202 bytes,   Routine Base: CODE + 0000

```
;  389     1426  1 ROUTINE GETQUI_UNLOCK(REC_N,REC): NOVALUE=
;  390     1427  1
;  391     1428  1 !++
;  392     1429  1 !
;  393     1430  1 ! FUNCTIONAL DESCRIPTION:
;  394     1431  1 !       This routine unlocks a specified record against modification.
;  395     1432  1 !
;  396     1433  1 ! INPUT PARAMETERS:
;  397     1434  1 !       REC_N           - Record number of record.
;  398     1435  1 !       REC             - Address of record.
;  399     1436  1 !
;  400     1437  1 ! IMPLICIT INPUTS:
;  401     1438  1 !       NONE
;  402     1439  1 !
;  403     1440  1 ! OUTPUT PARAMETERS:
;  404     1441  1 !       NONE
;  405     1442  1 !
;  406     1443  1 ! IMPLICIT OUTPUTS:
;  407     1444  1 !       NONE
;  408     1445  1 !
;  409     1446  1 ! ROUTINE VALUE:
;  410     1447  1 !       NONE
;  411     1448  1 !
;  412     1449  1 ! SIDE EFFECTS:
;  413     1450  1 !       NONE
;  414     1451  1 !
;  415     1452  1 !--
;  416     1453  1
;  417     1454  2 BEGIN
;  418     1455  2 LOCAL
;  419     1456  2         PREV,                           ! Pointer to previous forward link
;  420     1457  2         GQL:            REF BBLOCK,     ! Pointer to $GETQUI lock block
;  421     1458  2         RESNAM:         BBLOCK[6],      ! Resource name
;  422     1459  2         STATUS;                         ! Status return
;  423     1460  2
;  424     1461  2
;  425     1462  2 ! Ensure that the record number constitutes a valid lock.
;  426     1463  2 !
;  427     1464  2 IF .REC_N LEQU SQH$K_RECNO
;  428     1465  2 THEN
;  429     1466  2     RETURN;
;  430     1467  2
;  431     1468  2
;  432     1469  2 ! Construct the resource name from the record number and the byte offset.
;  433     1470  2 !
;  434     1471  2 RESNAM[0,0,32,0] = .REC_N;
;  435     1472  2 RESNAM[4,0,16,0] = .REC<0,9>;
;  436     1473  2
;  437     1474  2
;  438     1475  2 ! Search the active $GETQUI lock block list for the specified resource.
;  439     1476  2 !
;  440     1477  2 PREV = GQL_ACTIVE_LIST;
;  441     1478  2 WHILE ..PREV NEQ 0 DO
;  442     1479  3     BEGIN
;  443     1480  3     GQL = ..PREV;
;  444     1481  3     CASE CH$COMPARE(
;  445     1482  3         %ALLOCATION(RESNAM), GQL[GQL_RECNO],
```

```
;  446          1483  3          %ALLOCATION(RESNAM), RESNAM)
;  447          1484  3      FROM -1 TO 1 OF
;  448          1485  3          SET
;  449          1486  3
;  450          1487  3
;  451          1488  3          [-1]:
;  452          1489  3              EXITLOOP;
;  453          1490  3
;  454          1491  3
;  455          1492  3          [0]:
;  456          1493  4              BEGIN
;  457          1494  4              GQL[GQL_REFCOUNT] = .GQL[GQL_REFCOUNT] - 1;
;  458          1495  4              IF .GQL[GQL_REFCOUNT] EQL 0
;  459          1496  4              THEN
;  460          1497  5                  BEGIN
;  461          1498  5                  STATUS = $DEQ(LKID=.GQL[GQL_LKID]);
;  462          1499  5                  IF NOT .STATUS
;  463          1500  5                  THEN
;  464          1501  5                      SIGNAL(JBC$_COMREMJBC OR STS$K_ERROR, 0, .STATUS);
;  465          1502  5
;  466          1503  5                  .PREV = .GQL[GQL_LINK];
;  467          1504  5                  CH$COPY(4, GQL_FREE_LIST, 0, GQL_K_LENGTH, .GQL);
;  468          1505  5                  GQL_FREE_LIST = .GQL;
;  469          1506  4                  END;
;  470          1507  4              RETURN;
;  471          1508  3              END;
;  472          1509  3
;  473          1510  3
;  474          1511  3          [+1]:
;  475          1512  3              PREV = GQL[GQL_LINK];
;  476          1513  3
;  477          1514  3
;  478          1515  3          TES;
;  479          1516  2      END;
;  480          1517  1  END;


                                                                .EXTRN  SYS$DEQ

                                                    03FC 00000 GETQUI_UNLOCK:
                                                                .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9                ; 1426
                                    59 00000000'    EF  9E 00002        MOVAB   GQL_FREE_LIST, R9
                                    5E              08  C2 00009        SUBL2   #8, SP
                                    01        04    AC  D1 0000C        CMPL    REC_N, #1                           ; 1464
                                                    5E  1B 00010        BLEQU   4$
                                    6E        04    AC  D0 00012        MOVL    REC_N, RESNAM                       ; 1471
                50        08    AC                  09  00 00016        EXTZV   #0, #9, REC, R0                     ; 1472
                                          04    AE    50  B0 0001C        MOVW    R0, RESNAM+4
                                    57        04    A9  9E 00020        MOVAB   GQL_ACTIVE_LIST, PREV               ; 1477
                                                    67  D5 00024 1$:     TSTL    (PREV)                              ; 1478
                                                    48  13 00026        BEQL    4$
                                    56              67  D0 00028        MOVL    (PREV), GQL                         ; 1480
                                          6E        04  A6 00028        CMPC3   #6, 4(GQL), RESNAM                  ; 1482
                                                    39  1A 00030        BGTRU   3$
                                                    3C  1F 00032        BLSSU   4$
                                                    0A  A6 B7 00034     DECW    10(GQL)                             ; 1494
```

```
                                                37  12 00037          BNEQ    4$                                              ; 1495
                                                7E  7C 00039          CLRQ    -(SP)                                           ; 1498
                                                7E  D4 0003B          CLRL    -(SP)
                                          0C    A6  DD 0003D          PUSHL   12(GQL)
                        00000000G       00      04  FB 00040          CALLS   #4, SYS$DEQ
                                        58      50  D0 00047          MOVL    R0, STATUS
                                        11      58  E8 0004A          BLBS    STATUS, 2$                                      ; 1499
                                                58  DD 0004D          PUSHL   STATUS                                          ; 1501
                                                7E  D4 0004F          CLRL    -(SP)
                                    00048412    8F  DD 00051          PUSHL   #295954
                        00000000G       00      03  FB 00057          CALLS   #3, LIB$SIGNAL
                                        67      66  D0 0005E 2$:      MOVL    (GQL), (PREV)                                   ; 1503
                10              00      69      04  2C 00061          MOVC5   #4, GQL_FREE_LIST, #0, #16, (GQL)               ; 1504
                                                66      00066
                                        69      56  D0 00067          MOVL    GQL, GQL_FREE_LIST                              ; 1505
                                                    04 0006A          RET                                                     ; 1493
                                        57      56  D0 0006B 3$:      MOVL    GQL, PREV                                       ; 1512
                                                B4  11 0006E          BRB     1$                                              ; 1478
                                                    04 00070 4$:      RET                                                     ; 1517

; Routine Size:  113 bytes,    Routine Base:  CODE + 00CA
```

```
;  482     1518  1 ROUTINE GETQUI_SYNCHRONIZE(REC_N,REC): NOVALUE=
;  483     1519  1
;  484     1520  1 !++
;  485     1521  1 !
;  486     1522  1 ! FUNCTIONAL DESCRIPTION:
;  487     1523  1 !       This routine synchronizes modification to a specified record with other
;  488     1524  1 !       job controllers in a cluster.
;  489     1525  1 !
;  490     1526  1 ! INPUT PARAMETERS:
;  491     1527  1 !       REC_N           - Record number of record.
;  492     1528  1 !       REC             - Address of record.
;  493     1529  1 !
;  494     1530  1 ! IMPLICIT INPUTS:
;  495     1531  1 !       NONE
;  496     1532  1 !
;  497     1533  1 ! OUTPUT PARAMETERS:
;  498     1534  1 !       NONE
;  499     1535  1 !
;  500     1536  1 ! IMPLICIT OUTPUTS:
;  501     1537  1 !       NONE
;  502     1538  1 !
;  503     1539  1 ! ROUTINE VALUE:
;  504     1540  1 !       NONE
;  505     1541  1 !
;  506     1542  1 ! SIDE EFFECTS:
;  507     1543  1 !       NONE
;  508     1544  1 !
;  509     1545  1 !--
;  510     1546  1
;  511     1547  2 BEGIN
;  512     1548  2 LOCAL
;  513     1549  2         PREV,                           ! Pointer to previous forward link
;  514     1550  2         GQL:            REF BBLOCK,     ! Pointer to $GETQUI lock block
;  515     1551  2         RESNAM:         BBLOCK[6],      ! Resource name
;  516     1552  2         DESC:           VECTOR[2],      ! Descriptor for resource name
;  517     1553  2         LKSB:           BBLOCK[8],      ! Lock status block
;  518     1554  2         STATUS;                         ! Status return
;  519     1555  2
;  520     1556  2
;  521     1557  2 ! Ensure that the record number constitutes a valid lock.
;  522     1558  2 !
;  523     1559  2 IF .REC_N LEQU SQH$K_RECNO
;  524     1560  2 THEN
;  525     1561  2     RETURN;
;  526     1562  2
;  527     1563  2
;  528     1564  2 ! Construct the resource name from the record number and the byte offset.
;  529     1565  2 !
;  530     1566  2 RESNAM[0,0,32,0] = .REC_N;
;  531     1567  2 RESNAM[4,0,16,0] = .REC<0,9>;
;  532     1568  2
;  533     1569  2
;  534     1570  2 ! Search the active $GETQUI lock block list for the specified resource.
;  535     1571  2 !
;  536     1572  2 PREV = GQL_ACTIVE_LIST;
;  537     1573  2 WHILE ..PREV NEQ 0 DO
;  538     1574  3     BEGIN
```

```
;  539          1575  3      GQL = ..PREV;
;  540          1576  3      CASE CH$COMPARE(
;  541          1577  3          %ALLOCATION(RESNAM), GQL[GQL_RECNO],
;  542          1578  3          %ALLOCATION(RESNAM), RESNAM)
;  543          1579  3      FROM -1 TO 1 OF
;  544          1580  3          SET
;  545          1581  3
;  546          1582  3
;  547          1583  3          [-1]:
;  548          1584  3              EXITLOOP;
;  549          1585  3
;  550          1586  3
;  551          1587  3          [0]:
;  552          1588  4              BEGIN
;  553          1589  4
;  554          1590  4              ! Convert the existing lock to PW mode in order to deliver blocking
;  555          1591  4              ! ASTs to each remote job controller that holds a PR lock.
;  556          1592  4              !
;  557          1593  4              LKSB[4,0,32,0] = .GQL[GQL_LKID];
;  558        P 1594  4              STATUS = $ENQW(
;  559        P 1595  4                  EFN=JBC$K_SYNC_EFN,
;  560        P 1596  4                  LKMODE=LCK$K_PWMODE,
;  561        P 1597  4                  LKSB=LKSB,
;  562          1598  4                  FLAGS=LCK$M_CONVERT);
;  563          1599  4              IF .STATUS THEN STATUS = .LKSB[0,0,16,0];
;  564          1600  4              IF NOT .STATUS
;  565          1601  4              THEN
;  566          1602  4                  SIGNAL(JBC$_COMREMJBC OR STS$K_ERROR, 0, .STATUS);
;  567          1603  4
;  568          1604  4
;  569          1605  4              ! Convert the lock back to PR mode.
;  570          1606  4              !
;  571        P 1607  4              STATUS = $ENQW(
;  572        P 1608  4                  EFN=JBC$K_SYNC_EFN,
;  573        P 1609  4                  LKMODE=LCK$K_PRMODE,
;  574        P 1610  4                  LKSB=LKSB,
;  575          1611  4                  FLAGS=LCK$M_CONVERT);
;  576          1612  4              IF .STATUS THEN STATUS = .LKSB[0,0,16,0];
;  577          1613  4              IF NOT .STATUS
;  578          1614  4              THEN
;  579          1615  4                  SIGNAL(JBC$_COMREMJBC OR STS$K_ERROR, 0, .STATUS);
;  580          1616  4
;  581          1617  4
;  582          1618  4              RETURN;
;  583          1619  3              END;
;  584          1620  3
;  585          1621  3
;  586          1622  3          [+1]:
;  587          1623  3              PREV = GQL[GQL_LINK];
;  588          1624  3
;  589          1625  3
;  590          1626  3          TES;
;  591          1627  2      END;
;  592          1628  2
;  593          1629  2
;  594          1630  2  ! Take a lock in PW mode in order to deliver blocking ASTs to each remote job
;  595          1631  2  ! controller that holds a PR lock.
```

```
;  596          1632  2 !
;  597          1633  2 DESC[0] = %ALLOCATION(RESNAM);
;  598          1634  2 DESC[1] = RESNAM;
;  599        P 1635  2 STATUS = $ENQW(
;  600        P 1636  2     EFN=JBC$K_SYNC_EFN,
;  601        P 1637  2     LKMODE=LCK$K_PWMODE,
;  602        P 1638  2     LKSB=LKSB,
;  603        P 1639  2     RESNAM=DESC,
;  604          1640  2     PARID=.(QUEUE_LOCK_LKSB[2]));
;  605          1641  2 IF .STATUS THEN STATUS = .LKSB[0,0,16,0];
;  606          1642  2 IF NOT .STATUS
;  607          1643  2 THEN
;  608          1644  2     SIGNAL(JBC$_COMREMJBC OR STS$K_ERROR, 0, .STATUS);
;  609          1645  2
;  610          1646  2
;  611          1647  2 ! Release the PW lock.
;  612          1648  2 !
;  613          1649  2 $DEQ(LKID=.LKSB[4,0,32,0]);
;  614          1650  1 END;


                                01FC 00000 GETQUI_SYNCHRONIZE:
                                           .WORD   Save R2,R3,R4,R5,R6,R7,R8                    ; 1518
                            58 00000000G   00  9E 00002        MOVAB   LIB$SIGNAL, R8
                            54 00000000G   00  9E 00009        MOVAB   SYS$ENQW, R4
                            5E             18  C2 00010        SUBL2   #24, SP
                            01        04   AC  D1 00013        CMPL    REC_N, #1                   ; 1559
                                           01  1A 00017        BGTRU   1$
                                           04  00019        RET
                                      10   AE       04   AC  D0 0001A 1$:     MOVL    REC_N, RESNAM               ; 1566
50                  08   AC                 09           00  EF 0001F        EXTZV   #0, #9, REC, R0             ; 1567
                                      14   AE           50  B0 00025        MOVW    R0, RESNAM+4
                                           57 00000000' EF  9E 00029        MOVAB   GQL_ACTIVE_LIST, PREV       ; 1572
                                           67  D5 00030 2$:     TSTL    (PREV)                      ; 1573
                                           70  13 00032        BEQL    7$
                                      55                   67  D0 00034        MOVL    (PREV), GQL                 ; 1575
                                10   AE       04   A5      06  29 00037        CMPC3   #6, 4(GQL), RESNAM          ; 1577
                                           60  1A 0003D        BGTRU   6$
                                           63  1F 0003F        BLSSU   7$
                                      04   AE       JC   A5  D0 00041        MOVL    12(GQL), LKSB+4             ; 1593
                                           7E  7C 00046        CLRQ    -(SP)                       ; 1598
                                           7E  7C 00048        CLRQ    -(SP)
                                           7E  7C 0004A        CLRQ    -(SP)
                                      7E                   02  7D 0004C        MOVQ    #2, -(SP)
                                                20   AE  9F 0004F        PUSHAB  LKSB
                                           04  DD 00052        PUSHL   #4
                                           01  DD 00054        PUSHL   #1
                                      64                   0B  FB 00056        CALLS   #11, SYS$ENQW
                                      56                   50  D0 00059        MOVL    R0, STATUS
                                      06                   56  E9 0005C        BLBC    STATUS, 3$          ; 1599
                                      56                   6E  3C 0005F        MOVZWL  LKSB, STATUS
                                      0D                   56  E8 00062        BLBS    STATUS, 4$          ; 1600
                                                           56  DD 00065 3$:     PUSHL   STATUS              ; 1602
                                                           7E  D4 00067        CLRL    -(SP)
```

```
                                00048412  8F  DD 00069          PUSHL   #295954                                ;
                              68          03  FB 0006F          CALLS   #3, LIB$SIGNAL                      ;
                                          7E  7C 00072 4$:       CLRQ    -(SP)                               ; 1611
                                          7E  7C 00074           CLRQ    -(SP)                               ;
                                          7E  7C 00076           CLRQ    -(SP)                               ;
                              7E          02  7D 00078           MOVQ    #2, -(SP)                           ;
                                    20    AE  9F 0007B           PUSHAB  LKSB                                ;
                                          03  DD 0007E           PUSHL   #3                                  ;
                                          01  DD 00080           PUSHL   #1                                  ;
                              64          0B  FB 00082           CALLS   #11, SYS$ENQW                       ;
                              56          50  D0 00085           MOVL    R0, STATUS                          ;
                              06          56  E9 00088           BLBC    STATUS, 5$                          ; 1612
                              56          6E  3C 0008B           MOVZWL  LKSB, STATUS                        ;
                              5E          56  E8 0008E           BLBS    STATUS, 10$                         ; 1613
                                          56  DD 00091 5$:       PUSHL   STATUS                              ; 1615
                                          7E  D4 00093           CLRL    -(SP)                               ;
                                00048412  8F  DD 00095           PUSHL   #295954                             ;
                              68          03  FB 0009B           CALLS   #3, LIB$SIGNAL                      ;
                                          04  00 0009E           RET                                         ; 1588
                              57          55  D0 0009F 6$:       MOVL    GQL, PREV                           ; 1623
                                          8C  11 000A2           BRB     2$                                  ; 1573
                        08    AE          06  D0 000A4 7$:       MOVL    #6, DESC                            ; 1633
                        0C    AE    10    AE  9E 000A8           MOVAB   RESNAM, DESC+4                      ; 1634
                                          7E  7C 000AD           CLRQ    -(SP)                               ; 1640
                                          7E  7C 000AF           CLRQ    -(SP)                               ;
                                          7E  D4 000B1           CLRL    -(SP)                               ;
                                00000000' EF  DD 000B3           PUSHL   QUEUE_LOCK_LKSB+4                   ;
                                    20    AE  9F 000B9           PUSHAB  DESC                                ;
                                          7E  D4 000BC           CLRL    -(SP)                               ;
                                    20    AE  9F 000BE           PUSHAB  LKSB                                ;
                                          04  DD 000C1           PUSHL   #4                                  ;
                                          01  DD 000C3           PUSHL   #1                                  ;
                              64          0B  FB 000C5           CALLS   #11, SYS$ENQW                       ;
                              56          50  D0 000C8           MOVL    R0, STATUS                          ;
                              06          56  E9 000CB           BLBC    STATUS, 8$                          ; 1641
                              56          6E  3C 000CE           MOVZWL  LKSB, STATUS                        ;
                              0D          56  E8 000D1           BLBS    STATUS, 9$                          ; 1642
                                          56  DD 000D4 8$:       PUSHL   STATUS                              ; 1644
                                          7E  D4 000D6           CLRL    -(SP)                               ;
                                00048412  8F  DD 000D8           PUSHL   #295954                             ;
                              68          03  FB 000DE           CALLS   #3, LIB$SIGNAL                      ;
                                          7E  7C 000E1 9$:       CLRQ    -(SP)                               ; 1649
                                          7E  D4 000E3           CLRL    -(SP)                               ;
                                    10    AE  DD 000E5           PUSHL   LKSB+4                              ;
                    00000000G   00          04  FB 000E8           CALLS   #4, SYS$DEQ                         ;
                                              04 000EF 10$:      RET                                         ; 1650

; Routine Size:  240 bytes,    Routine Base:  CODE + 013B
```

```
;  616     1651  1 ROUTINE GETQUI_RELEASE(REC_N,REC): NOVALUE=
;  617     1652  1
;  618     1653  1 !++
;  619     1654  1 !
;  620     1655  1 ! FUNCTIONAL DESCRIPTION:
;  621     1656  1 !       This routine releases the lock on a specified record momentarily as part
;  622     1657  1 !       of the synchronization with other job controllers in a cluster.
;  623     1658  1 !
;  624     1659  1 ! INPUT PARAMETERS:
;  625     1660  1 !       REC_N           - Record number of record.
;  626     1661  1 !       REC             - Address of record.
;  627     1662  1 !
;  628     1663  1 ! IMPLICIT INPUTS:
;  629     1664  1 !       NONE
;  630     1665  1 !
;  631     1666  1 ! OUTPUT PARAMETERS:
;  632     1667  1 !       NONE
;  633     1668  1 !
;  634     1669  1 ! IMPLICIT OUTPUTS:
;  635     1670  1 !       NONE
;  636     1671  1 !
;  637     1672  1 ! ROUTINE VALUE:
;  638     1673  1 !       NONE
;  639     1674  1 !
;  640     1675  1 ! SIDE EFFECTS:
;  641     1676  1 !       NONE
;  642     1677  1 !
;  643     1678  1 !--
;  644     1679  1
;  645     1680  2 BEGIN
;  646     1681  2 LOCAL
;  647     1682  2         PREV,                           ! Pointer to previous forward link
;  648     1683  2         GQL:            REF BBLOCK,     ! Pointer to $GETQUI lock block
;  649     1684  2         RESNAM:         BBLOCK[6],      ! Resource name
;  650     1685  2         DESC:           VECTOR[2],      ! Descriptor for resource name
;  651     1686  2         LKSB:           BBLOCK[8],      ! Lock status block
;  652     1687  2         STATUS;                         ! Status return
;  653     1688  2
;  654     1689  2
;  655     1690  2 ! Ensure that the record number constitutes a valid lock.
;  656     1691  2 !
;  657     1692  2 IF .REC_N LEQU SQH$K_RECNO
;  658     1693  2 THEN
;  659     1694  2     RETURN;
;  660     1695  2
;  661     1696  2
;  662     1697  2 ! Construct the resource name from the record number and the byte offset.
;  663     1698  2 !
;  664     1699  2 RESNAM[0,0,32,0] = .REC_N;
;  665     1700  2 RESNAM[4,0,16,0] = .REC<0,9>;
;  666     1701  2
;  667     1702  2
;  668     1703  2 ! Search the active $GETQUI lock block list for the specified resource.
;  669     1704  2 !
;  670     1705  2 PREV = GQL_ACTIVE_LIST;
;  671     1706  2 WHILE ..PREV NEQ 0 DO
;  672     1707  3     BEGIN
```

```
;  673          1708  3      GQL = ..PREV;
;  674          1709  3      CASE CH$COMPARE(
;  675          1710  3          %ALLOCATION(RESNAM), GQL[GQL_RECNO],
;  676          1711  3          %ALLOCATION(RESNAM), RESNAM)
;  677          1712  3      FROM -1 TO 1 OF
;  678          1713  3          SET
;  679          1714  3
;  680          1715  3
;  681          1716  3          [-1]:
;  682          1717  3              EXITLOOP;
;  683          1718  3
;  684          1719  3
;  685          1720  3          [0]:
;  686          1721  4              BEGIN
;  687          1722  4
;  688          1723  4              ! Dequeue the existing lock in order to allow the job
;  689          1724  4              ! controller doing the modification to acquire the PW lock.
;  690          1725  4              !
;  691          1726  4              STATUS = $DEQ(LKID=.GQL[GQL_LKID]);
;  692          1727  4              IF NOT .STATUS
;  693          1728  4              THEN
;  694          1729  4                  SIGNAL(JBC$_COMREMJBC OR STS$K_ERROR, 0, .STATUS);
;  695          1730  4
;  696          1731  4
;  697          1732  4              ! Reacquire a PR lock on the resource.
;  698          1733  4              !
;  699          1734  4              DESC[0] = %ALLOCATION(RESNAM);
;  700          1735  4              DESC[1] = RESNAM;
;  701        P 1736  4              STATUS = $ENQW(
;  702        P 1737  4                  EFN=JBC$K_SYNC_EFN,
;  703        P 1738  4                  LKMODE=LCK$K_PRMODE,
;  704        P 1739  4                  LKSB=LKSB,
;  705        P 1740  4                  RESNAM=DESC,
;  706        P 1741  4                  FLAGS=LCK$M_NODLCKBLK,
;  707        P 1742  4                  PARID=.(QUEUE_LOCK_LKSB[2]),
;  708        P 1743  4                  ASTPRM=.GQL,
;  709          1744  4                  BLKAST=GETQUI_BLOCKING_AST);
;  710          1745  4              IF .STATUS THEN STATUS = .LKSB[0,0,16,0];
;  711          1746  4              IF NOT .STATUS
;  712          1747  4              THEN
;  713          1748  4                  SIGNAL(JBC$_COMREMJBC OR STS$K_ERROR, 0, .STATUS);
;  714          1749  4
;  715          1750  4
;  716          1751  4              ! Save the new lock ID.
;  717          1752  4              !
;  718          1753  4              GQL[GQL_LKID] = .LKSB[4,0,32,0];
;  719          1754  4              EXITLOOP;
;  720          1755  3              END;
;  721          1756  3
;  722          1757  3
;  723          1758  3          [+1]:
;  724          1759  3              PREV = GQL[GQL_LINK];
;  725          1760  3
;  726          1761  3
;  727          1762  3          TES;
;  728          1763  2      END;
;  729          1764  1 END;
```

```
                                00FC 00000 GETQUI_RELEASE:
                                           .WORD   Save R2,R3,R4,R5,R6,R7                  ; 1651
                          54 00000000G  00  9E 00002        MOVAB   LIB$SIGNAL, R4
                          5E            18  C2 00009        SUBL2   #24, SP
                          01       04   AC  D1 0000C        CMPL    REC_N, #1               ; 1692
                                        01  1A 00010        BGTRU   1$
                                            04 00012        RET
                      10  AE       04   AC  D0 00013 1$:     MOVL    REC_N, RESNAM           ; 1699
     50       08  AC                   09  00 EF 00018      EXTZV   #0, #9, REC, R0         ; 1700
                      14  AE            50  B0 0001E        MOVW    R0, RESNAM+4
                          57 00000000'  EF  9E 00022        MOVAB   GQL_ACTIVE_LIST, PREV   ; 1705
                                        67  D5 00029 2$:     TSTL    (PREV)                  ; 1706
                                        01  12 0002B        BNEQ    3$
                                            04 0002D        RET
                          55            67  D0 0002E 3$:     MOVL    (PREV), GQL             ; 1708
          10  AE       04   A5           06  29 00031      CMPC3   #6, 4(GQL), RESNAM      ; 1710
                                        71  1A 00037        BGTRU   7$
                                        75  1F 00039        BLSSU   8$
                                        7E  7C 0003B        CLRQ    -(SP)                   ; 1726
                                        7E  D4 0003D        CLRL    -(SP)
                                   0C   A5  DD 0003F        PUSHL   12(GQL)
                 00000000G  00          04  FB 00042        CALLS   #4, SYS$DEQ
                          56            50  D0 00049        MOVL    R0, STATUS
                          0D            56  E8 0004C        BLBS    STATUS, 4$              ; 1727
                                        56  DD 0004F        PUSHL   STATUS                  ; 1729
                                        7E  D4 00051        CLRL    -(SP)
                            00048412    8F  DD 00053        PUSHL   #295954
                          64            03  FB 00059        CALLS   #3, LIB$SIGNAL
                    08    AE            06  D0 0005C 4$:     MOVL    #6, DESC                ; 1734
                    0C    AE       10   AE  9E 00060        MOVAB   RESNAM, DESC+4          ; 1735
                                        7E  7C 00065        CLRQ    -(SP)                   ; 1744
                               0000V    CF  9F 00067        PUSHAB  GETQUI_BLOCKING_AST
                                        55  DD 0006B        PUSHL   GQL
                                        7E  D4 0006D        CLRL    -(SP)
                            00000000'   FF  DD 0006F        PUSHL   QUEUE_LOCK_LKSB+4
                                  20    AE  9F 00075        PUSHAB  DESC
                          7E      0400  8F  3C 00078        MOVZWL  #1024, -(SP)
                                  20    AE  9F 0007D        PUSHAB  LKSB
                                        03  DD 00080        PUSHL   #3
                                        01  DD 00082        PUSHL   #1
                 00000000G  00          0B  FB 00084        CALLS   #11, SYS$ENQW
                          56            50  D0 0008B        MOVL    R0, STATUS
                          06            56  E9 0008E        BLBC    STATUS, 5$              ; 1745
                          56            6E  3C 00091        MOVZWL  LKSB, STATUS
                          0D            56  E8 00094        BLBS    STATUS, 6$              ; 1746
                                        56  DD 00097 5$:     PUSHL   STATUS                  ; 1748
                                        7E  D4 00099        CLRL    -(SP)
                            00048412    8F  DD 0009B        PUSHL   #295954
                          64            03  FB 000A1        CALLS   #3, LIB$SIGNAL
                    0C    A5       04   AE  D0 000A4 6$:     MOVL    LKSB+4, 12(GQL)         ; 1753
                                        04  04 000A9        RET                             ; 1721
                          57            55  D0 000AA 7$:     MOVL    GQL, PREV               ; 1759
```

```
                FF79  31 000AD          BRW     2$                      ; 1706
                      04 000B0 8$:      RET                             ; 1764

; Routine Size:  177 bytes,    Routine Base:  CODE + 022B
```

```
;  731     1765  1 ROUTINE UPDATE_GETQUI_LOCKS(GQC_1,GQC_2): NOVALUE=
;  732     1766  1
;  733     1767  1 !++
;  734     1768  1 !
;  735     1769  1 ! FUNCTIONAL DESCRIPTION:
;  736     1770  1 !       This routine updates locks in the $GETQUI lock data base at completion
;  737     1771  1 !       of a $GETQUI operation.
;  738     1772  1 !
;  739     1773  1 ! INPUT PARAMETERS:
;  740     1774  1 !       GQC_1           - Pointer to GQC image before operation.
;  741     1775  1 !       GQC_2           - Pointer to GQC image after operation, or 0 if none.
;  742     1776  1 !
;  743     1777  1 ! IMPLICIT INPUTS:
;  744     1778  1 !       NONE
;  745     1779  1 !
;  746     1780  1 ! OUTPUT PARAMETERS:
;  747     1781  1 !       NONE
;  748     1782  1 !
;  749     1783  1 ! IMPLICIT OUTPUTS:
;  750     1784  1 !       NONE
;  751     1785  1 !
;  752     1786  1 ! ROUTINE VALUE:
;  753     1787  1 !       NONE
;  754     1788  1 !
;  755     1789  1 ! SIDE EFFECTS:
;  756     1790  1 !       NONE
;  757     1791  1 !
;  758     1792  1 !--
;  759     1793  1
;  760     1794  2 BEGIN
;  761     1795  2 MAP
;  762     1796  2         GQC_1:          REF BBLOCK,     ! Pointer to GQC
;  763     1797  2         GQC_2:          REF BBLOCK;     ! Pointer to GQC
;  764     1798  2
;  765     1799  2
;  766     1800  2 IF .GQC_2 EQL 0
;  767     1801  2 THEN
;  768     1802  3     BEGIN
;  769     1803  3
;  770     1804  3     ! No after image.  Unlock all locks held on account of the before image.
;  771     1805  3     !
;  772     1806  3     GETQUI_UNLOCK(.GQC_1[GQC_SCX_N], .GQC_1[GQC_SCE_N]);
;  773     1807  3     GETQUI_UNLOCK(.GQC_1[GQC_SFX_N], .GQC_1[GQC_SFE_N]);
;  774     1808  3     GETQUI_UNLOCK(.GQC_1[GQC_SQX_N], .GQC_1[GQC_SQE_N]);
;  775     1809  3     GETQUI_UNLOCK(.GQC_1[GQC_SJH_N], 0);
;  776     1810  3     END
;  777     1811  2 ELSE
;  778     1812  3     BEGIN
;  779     1813  3
;  780     1814  3     ! If the characteristic context has changed, unlock the before image record
;  781     1815  3     ! and lock the after image record.
;  782     1816  3     !
;  783     1817  3     IF .GQC_1[GQC_SCX_N] NEQ .GQC_2[GQC_SCX_N]
;  784     1818  3     OR .GQC_1[GQC_SCE_N] NEQ .GQC_2[GQC_SCE_N]
;  785     1819  3     THEN
;  786     1820  4         BEGIN
;  787     1821  4         GETQUI_UNLOCK(.GQC_1[GQC_SCX_N], .GQC_1[GQC_SCE_N]);
```

```
;  788          1822  4          GETQUI_LOCK  (.GQC_2[GQC_SCX_N], .GQC_2[GQC_SCE_N]);
;  789          1823  3          END;
;  790          1824  3
;  791          1825  3
;  792          1826  3      ! If the form context has changed, unlock the before image record and lock
;  793          1827  3      ! the after image record.
;  794          1828  3      !
;  795          1829  3      IF .GQC_1[GQC_SFX_N] NEQ .GQC_2[GQC_SFX_N]
;  796          1830  3      OR .GQC_1[GQC_SFE_N] NEQ .GQC_2[GQC_SFE_N]
;  797          1831  3      THEN
;  798          1832  4          BEGIN
;  799          1833  4          GETQUI_UNLOCK(.GQC_1[GQC_SFX_N], .GQC_1[GQC_SFE_N]);
;  800          1834  4          GETQUI_LOCK  (.GQC_2[GQC_SFX_N], .GQC_2[GQC_SFE_N]);
;  801          1835  3          END;
;  802          1836  3
;  803          1837  3
;  804          1838  3      ! If the queue context has changed, unlock the before image record and lock
;  805          1839  3      ! the after image record.
;  806          1840  3      !
;  807          1841  3      IF .GQC_1[GQC_SQX_N] NEQ .GQC_2[GQC_SQX_N]
;  808          1842  3      OR .GQC_1[GQC_SQE_N] NEQ .GQC_2[GQC_SQE_N]
;  809          1843  3      THEN
;  810          1844  4          BEGIN
;  811          1845  4          GETQUI_UNLOCK(.GQC_1[GQC_SQX_N], .GQC_1[GQC_SQE_N]);
;  812          1846  4          GETQUI_LOCK  (.GQC_2[GQC_SQX_N], .GQC_2[GQC_SQE_N]);
;  813          1847  3          END;
;  814          1848  3
;  815          1849  3
;  816          1850  3      ! If the job context has changed, unlock the before image record and lock
;  817          1851  3      ! the after image record.
;  818          1852  3      !
;  819          1853  3      IF .GQC_1[GQC_SJH_N] NEQ  GQC_2[GQC_SJH_N]
;  820          1854  3      THEN
;  821          1855  4          BEGIN
;  822          1856  4          GETQUI_UNLOCK(.GQC_1[GQC_SJH_N], 0);
;  823          1857  4          GETQUI_LOCK  (.GQC_2[GQC_SJH_N], 0);
;  824          1858  3          END;
;  825          1859  2      END;
;  826          1860  1 END;


                                001C 00000 UPDATE_GETQUI_LOCKS:
                                           .WORD   Save R2,R3,R4                    ; 1765
                54      FDE8    CF  9E 00002       MOVAB   GETQUI_UNLOCK, R4
                52        04    AC  7D 00007       MOVQ    GQC_1, R2                ; 1806
                                53  D5 0000B       TSTL    R3                       ; 1800
                                1E  12 0000D       BNEQ    1$
                7E        0C    A2  7D 0000F       MOVQ    12(R2), -(SP)            ; 1806
                64              02  FB 00013       CALLS   #2, GETQUI_UNLOCK
                7E        14    A2  7D 00016       MOVQ    20(R2), -(SP)            ; 1807
                64              02  FB 0001A       CALLS   #2, GETQUI_UNLOCK
                7E        1C    A2  7D 0001D       MOVQ    28(R2), -(SP)            ; 1808
                64              02  FB 00021       CALLS   #2, GETQUI_UNLOCK
                                7E  D4 00024       CLRL    -(SP)                    ; 1809
```

```
                        2C  A2  DD 00026          PUSHL   44(R2)
                64          02  FB 00029          CALLS   #2, GETQUI_UNLOCK
                                04 0002C          RET                                     ;  1800
             0C A3      0C  A2  D1 0002D 1$:      CMPL    12(R2), 12(R3)                  ;  1817
                                07 12 00032       BNEQ    2$
             10 A3      10  A2  D1 00034          CMPL    16(R2), 16(R3)                  ;  1818
                                10 13 00039       BEQL    3$
                        7E  0C  A2  7D 0003B 2$:  MOVQ    12(R2), -(SP)                   ;  1821
                64          02  FB 0003F          CALLS   #2, GETQUI_UNLOCK
                        7E  0C  A3  7D 00042      MOVQ    12(R3), -(SP)                   ;  1822
           FF36 C4              02  FB 00046      CALLS   #2, GETQUI_LOCK
             14 A3      14  A2  D1 0004B 3$:      CMPL    20(R2), 20(R3)                  ;  1829
                                07 12 00050       BNEQ    4$
             18 A3      18  A2  D1 00052          CMPL    24(R2), 24(R3)                  ;  1830
                                10 13 00057       BEQL    5$
                        7E  14  A2  7D 00059 4$:  MOVQ    20(R2), -(SP)                   ;  1833
                64          02  FB 0005D          CALLS   #2, GETQUI_UNLOCK
                        7E  14  A3  7D 00060      MOVQ    20(R3), -(SP)                   ;  1834
           FF36 C4              02  FB 00064      CALLS   #2, GETQUI_LOCK
             1C A3      1C  A2  D1 00069 5$:      CMPL    28(R2), 28(R3)                  ;  1841
                                07 12 0006E       BNEQ    6$
             20 A3      20  A2  D1 00070          CMPL    32(R2), 32(R3)                  ;  1842
                                10 13 00075       BEQL    7$
                        7E  1C  A2  7D 00077 6$:  MOVQ    28(R2), -(SP)                   ;  1845
                64          02  FB 0007B          CALLS   #2, GETQUI_UNLOCK
                        7E  1C  A3  7D 0007E      MOVQ    28(R3), -(SP)                   ;  1846
           FF36 C4              02  FB 00082      CALLS   #2, GETQUI_LOCK
             2C A3      2C  A2  D1 00087 7$:      CMPL    44(R2), 44(R3)                  ;  1853
                                12 13 0008C       BEQL    8$
                                7E D4 0008E       CLRL    -(SP)                           ;  1856
                        2C  A2  DD 00090          PUSHL   44(R2)
                64          02  FB 00093          CALLS   #2, GETQUI_UNLOCK
                                7E D4 00096       CLRL    -(SP)                           ;  1857
                        2C  A3  DD 00098          PUSHL   44(R3)
           FF36 C4              02  FB 0009B      CALLS   #2, GETQUI_LOCK
                                04 000A0 8$:      RET                                     ;  1860

; Routine Size:  161 bytes,    Routine Base:  CODE + 02DC
```

```
;  828     1861  1 GLOBAL ROUTINE UPDATE_GETQUI_DATA(REC_N,REC,BLKAST): NOVALUE=
;  829     1862  1
;  830     1863  1 !++
;  831     1864  1 !
;  832     1865  1 ! FUNCTIONAL DESCRIPTION:
;  833     1866  1 !       This routine updates references in the $GETQUI lock data base to the
;  834     1867  1 !       specified record.
;  835     1868  1 !
;  836     1869  1 ! INPUT PARAMETERS:
;  837     1870  1 !       REC_N           - Record number of record.
;  838     1871  1 !       REC             - Pointer to record, possibly including byte offset.
;  839     1872  1 !       BLKAST          - Present if this routine is being called in response
;  840     1873  1 !                         to a blocking AST.
;  841     1874  1 !
;  842     1875  1 ! IMPLICIT INPUTS:
;  843     1876  1 !       NONE
;  844     1877  1 !
;  845     1878  1 ! OUTPUT PARAMETERS:
;  846     1879  1 !       NONE
;  847     1880  1 !
;  848     1881  1 ! IMPLICIT OUTPUTS:
;  849     1882  1 !       NONE
;  850     1883  1 !
;  851     1884  1 ! ROUTINE VALUE:
;  852     1885  1 !       NONE
;  853     1886  1 !
;  854     1887  1 ! SIDE EFFECTS:
;  855     1888  1 !       NONE
;  856     1889  1 !
;  857     1890  1 !--
;  858     1891  1
;  859     1892  2 BEGIN
;  860     1893  2 MAP
;  861     1894  2         REC:            REF BBLOCK;     ! Pointer to record
;  862     1895  2 LOCAL
;  863     1896  2         GQC:            REF BBLOCK,     ! Pointer to GQC
;  864     1897  2         BOFF;                           ! Byte offset from record pointer
;  865     1898  2 BUILTIN
;  866     1899  2         ACTUALCOUNT;
;  867     1900  2
;  868     1901  2
;  869     1902  2 ! Deliver the remote blocking ASTs.
;  870     1903  2 !
;  871     1904  2 BOFF = .REC<0,9>;
;  872     1905  2 IF ACTUALCOUNT() LSSU 3 THEN GETQUI_SYNCHRONIZE(.REC_N, .BOFF);
;  873     1906  2
;  874     1907  2
;  875     1908  2 ! Loop over all $GETQUI context records.
;  876     1909  2 !
;  877     1910  2 GQC = .OPEN_GETQUI_LIST;
;  878     1911  2 WHILE .GQC NEQ 0 DO
;  879     1912  3     BEGIN
;  880     1913  3
;  881     1914  3     ! If the characteristic context is being deleted, advance that context.
;  882     1915  3     !
;  883     1916  3     IF .GQC[GQC_SCX_N] EQL .REC_N AND .GQC[GQC_SCE_N] EQL .BOFF
;  884     1917  3     THEN
```

```
;  885          1918  4          BEGIN
;  886          1919  4          GQC[GQC_SCX_NO_ADV] = TRUE;
;  887          1920  4          IF ACTUALCOUNT() GEQU 3 THEN GETQUI_RELEASE(.REC_N, .BOFF);
;  888          1921  3          END;
;  889          1922  3
;  890          1923  3
;  891          1924  3      ! If the form context is being deleted, advance that context.
;  892          1925  3      !
;  893          1926  3      IF .GQC[GQC_SFX_N] EQL .REC_N AND .GQC[GQC_SFE_N] EQL .BOFF
;  894          1927  3      THEN
;  895          1928  4          BEGIN
;  896          1929  4          GQC[GQC_SFX_NO_ADV] = TRUE;
;  897          1930  4          IF ACTUALCOUNT() GEQU 3 THEN GETQUI_RELEASE(.REC_N, .BOFF);
;  898          1931  3          END;
;  899          1932  3
;  900          1933  3
;  901          1934  3      ! If the queue context is being deleted, advance that context.
;  902          1935  3      !
;  903          1936  3      IF .GQC[GQC_SQX_N] EQL .REC_N AND .GQC[GQC_SQE_N] EQL .BOFF
;  904          1937  3      THEN
;  905          1938  4          BEGIN
;  906          1939  4          GETQUI_UNLOCK(.GQC[GQC_SJH_N], 0);
;  907          1940  4          GQC[GQC_SQX_NO_ADV] = TRUE;
;  908          1941  4          GQC[GQC_SJH_Q] = GQC_K_DONE;
;  909          1942  4          GQC[GQC_SJH_N] = 0;
;  910          1943  4          GQC[GQC_SQR_N] = 0;
;  911          1944  4          IF ACTUALCOUNT() GEQU 3 THEN GETQUI_RELEASE(.REC_N, .BOFF);
;  912          1945  3          END;
;  913          1946  3
;  914          1947  3
;  915          1948  3      ! If the job context is being deleted, advance that context.
;  916          1949  3      !
;  917          1950  3      IF .GQC[GQC_SJH_N] EQL .REC_N
;  918          1951  3      THEN
;  919          1952  4          BEGIN
;  920          1953  4          GETQUI_UNLOCK(.GQC[GQC_SJH_N], 0);
;  921          1954  4          GQC[GQC_SJH_N] = .REC[SYM$_LINK];
;  922          1955  4          GQC[GQC_SJH_NO_ADV] = TRUE;
;  923          1956  4          GETQUI_LOCK (.GQC[GQC_SJH_N], 0);
;  924          1957  4          GQC[GQC_SQR_N] = 0;
;  925          1958  3          END;
;  926          1959  3
;  927          1960  3
;  928          1961  3      GQC = .GQC[GQC_LINK];
;  929          1962  2      END;
;  930          1963  1 END;


                                                  003C 00000     .ENTRY  UPDATE_GETQUI_DATA, Save R2,R3,R4,R5          ; 1861
                                       55    FEA8 CF   9E 00002  MOVAB   GETQUI_RELEASE, R5                           ;
        54      08   AC                 09         00   EF 00007  EXTZV   #0, #9, REC, BOFF                          ; 1904
                                       03         6C   91 0000D  CMPB    (AP), #3                                   ; 1905
                                                  0A   1E 00010  BGEQU   1$                                         ;
                                                  54   DD 00012  PUSHL   BOFF                                       ;
```

```
                                 04 AC  DD 00014          PUSHL   REC_N
                       FF10      C5 02  FB 00017          CALLS   #2, GETQUI_SYNCHRONIZE
                          52 00000000' EF  D0 0001C 1$:    MOVL    OPEN_GETQUI_LIST, GQC                    1910
                          53       04 AC  D0 00023          MOVL    REC_N, R3                                1916
                                      52  D5 00027 2$:     TSTL    GQC                                      1911
                                      01  12 00029          BNEQ    3$
                                          04 0002B          RET
                             53       0C A2  D1 0002C 3$.    CMPL    12(GQC), R3                              1916
                                      14  12 00030          BNEQ    4$
                             54       10 A2  D1 00032          CMPL    16(GQC), BOFF
                                      0E  12 00036          BNEQ    4$
                          08 A2            10  88 00038          BISB2   #16, 8(GQC)                          1919
                          03               6C  91 0003C          CMPB    (AP), #3                             1920
                                           05  1F 0003F          BLSSU   4$
                                           18  BB 00041          PUSHR   #^M<R3,R4>
                             65            02  FB 00043          CALLS   #2, GETQUI_RELEASE
                             53       14 A2  D1 00046 4$:     CMPL    20(GQC), R3                              1926
                                      14  12 0004A          BNEQ    5$
                             54       18 A2  D1 0004C          CMPL    24(GQC), BOFF
                                      0E  12 00050          BNEQ    5$
                          08 A2            20  88 00052          BISB2   #32, 8(GQC)                          1929
                          03               6C  91 00056          CMPB    (AP), #3                             1930
                                           05  1F 00059          BLSSU   5$
                                           18  BB 0005B          PUSHR   #^M<R3,R4>
                             65            02  FB 0005D          CALLS   #2, GETQUI_RELEASE
                             53       1C A2  D1 00060 5$:     CMPL    28(GQC), R3                              1936
                                      26  12 00064          BNEQ    6$
                             54       20 A2  D1 00066          CMPL    32(GQC), BOFF
                                      20  12 0006A          BNEQ    6$
                                      7E  D4 0006C          CLRL    -(SP)                                    1939
                                   2C A2  DD 0006E          PUSHL   44(GQC)
                       FE9F        C5 02  FB 00071          CALLS   #2, GETQUI_UNLOCK
                          08 A2       40  8F 88 00076          BISB2   #64, 8(GQC)                          1940
                          28 A2           05  7D 0007B          MOVQ    #5, 40(GQC)                          1941
                                   30 A2  D4 0007F          CLRL    48(GQC)                                  1943
                             03            6C  91 00082          CMPB    (AP), #3                             1944
                                           05  1F 00085          BLSSU   6$
                                           18  BB 00087          PUSHR   #^M<R3,R4>
                             65            02  FB 00089          CALLS   #2, GETQUI_RELEASE
                             53       2C A2  D1 0008C 6$:     CMPL    44(GQC), R3                              1950
                                      21  12 00090          BNEQ    7$
                                      7E  D4 00092          CLRL    -(SP)                                    1953
                                   2C A2  DD 00094          PUSHL   44(GQC)
                       FE9F        C5 02  FB 00097          CALLS   #2, GETQUI_UNLOCK
                          2C A2       08  BC D0 0009C          MOVL    @REC, 44(GQC)                            1954
                          08 A2           80  8F 88 000A1          BISB2   #128, 8(GQC)                         1955
                                      7E  D4 000A6          CLRL    -(SP)                                    1956
                                   2C A2  DD 000A8          PUSHL   44(GQC)
                       FDD5        C5 02  FB 000AB          CALLS   #2, GETQUI_LOCK
                                   30 A2  D4 000B0          CLRL    48(GQC)                                  1957
                             52            62  D0 000B3 7$:     MOVL    (GQC), GQC                           1961
                                        FF6E  31 000B6          BRW     2$                                   1911
                                           04 000B9          RET                                          1963

; Routine Size:  186 bytes,    Routine Base:  CODE + 037D
```

```
;  932     1964  1 ROUTINE GETQUI_BLOCKING_AST(GQL): NOVALUE=
;  933     1965  1
;  934     1966  1 !++
;  935     1967  1 !
;  936     1968  1 ! FUNCTIONAL DESCRIPTION:
;  937     1969  1 !       This routine is a blocking AST for the $GETQUI lock list.
;  938     1970  1 !
;  939     1971  1 ! INPUT PARAMETERS:
;  940     1972  1 !       GQL             - Pointer to GQL (passed as ASTPRM).
;  941     1973  1 !
;  942     1974  1 ! IMPLICIT INPUTS:
;  943     1975  1 !       NONE
;  944     1976  1 !
;  945     1977  1 ! OUTPUT PARAMETERS:
;  946     1978  1 !       NONE
;  947     1979  1 !
;  948     1980  1 ! IMPLICIT OUTPUTS:
;  949     1981  1 !       NONE
;  950     1982  1 !
;  951     1983  1 ! ROUTINE VALUE:
;  952     1984  1 !       NONE
;  953     1985  1 !
;  954     1986  1 ! SIDE EFFECTS:
;  955     1987  1 !       NONE
;  956     1988  1 !
;  957     1989  1 !--
;  958     1990  1
;  959     1991  2 BEGIN
;  960     1992  2 MAP
;  961     1993  2         GQL:            REF BBLOCK;     ! Pointer to $GETQUI lock block
;  962     1994  2
;  963     1995  2
;  964     1996  2 IF .QUEUE_FAB[FAB$W_IFI] NEQ 0
;  965     1997  2 THEN
;  966     1998  3     BEGIN
;  967     1999  3     DIAG_TRACE[7] = .GQL[GQL_RECNO];    ! ***** diagnostic info *****
;  968     2000  3     IF .GQL[GQL_BOFF] NEQ 0
;  969     2001  3     THEN
;  970     2002  4         BEGIN
;  971     2003  4
;  972     2004  4         ! The record is a characteristic, form, or queue record.  Update all
;  973     2005  4         ! references to the record, which does not require reference to the
;  974     2006  4         ! record itself.
;  975     2007  4         !
;  976     2008  4         UPDATE_GETQUI_DATA(.GQL[GQL_RECNO], .GQL[GQL_BOFF], 0);
;  977     2009  4         END
;  978     2010  3     ELSE
;  979     2011  4         BEGIN
;  980     2012  4         LOCAL
;  981     2013  4             AST_QUEUE_RAB: BBLOCK[RAB$C_BLN], ! Temporary AST level RAB
;  982     2014  4             REC:        REF BBLOCK;     ! Pointer to queue record
;  983     2015  4
;  984     2016  4         ! Ensure RAB is idle and create a temporary copy of it.
;  985     2017  4         !
;  986     2018  5         IF NOT $WAIT(RAB=QUEUE_RAB)
;  987     2019  4         THEN
;  988     2020  4             SIGNAL_FILE_ERROR(
```

```
;  989          2021  4                    JBC$_READERR + STS$K_SEVERE,
;  990          2022  4                    QUEUE_FAB, QUEUE_RAB);
;  991          2023  4            CH$MOVE (RAB$C_BLN, QUEUE_RAB, AST_QUEUE_RAB);
;  992          2024  4
;  993          2025  4
;  994          2026  4            ! The record is a job record.  Allocate a (page-aligned) buffer for
;  995          2027  4            ! the record, and read the record.
;  996          2028  4            !
;  997          2029  4            REC = ALLOCATE_MEMORY();
;  998          2030  4            AST_QUEUE_RAB[RAB$L_KBF] = GQL[GQL_RECNO];
;  999          2031  4            IF .FLAGS[FLAGS_V_QUEUE_SHARED]
; 1000          2032  4                THEN AST_QUEUE_RAB[RAB$L_ROP] = RAB$M_NLK OR RAB$M_RRL
; 1001          2033  4                ELSE AST_QUEUE_RAB[RAB$L_ROP] = 0;
; 1002          2034  4            AST_QUEUE_RAB[RAB$L_UBF] = .REC;
; 1003          2035  4            DIAG_COUNT[0] = .DIAG_COUNT[0] + 1;
; 1004          2036  5            IF NOT $GET(RAB=AST_QUEUE_RAB)
; 1005          2037  4            THEN
; 1006          2038  4                SIGNAL_FILE_ERROR(
; 1007          2039  4                    JBC$_READERR + STS$K_SEVERE,
; 1008          2040  4                    QUEUE_FAB, AST_QUEUE_RAB);
; 1009          2041  4
; 1010          2042  4
; 1011          2043  4            ! Update all references to the record.
; 1012          2044  4            !
; 1013          2045  4            UPDATE_GETQUI_DATA(.GQL[GQL_RECNO], .REC, 0);
; 1014          2046  4
; 1015          2047  4
; 1016          2048  4            ! Deallocate the record.
; 1017          2049  4            !
; 1018          2050  4            DEALLOCATE_MEMORY(.REC);
; 1019          2051  3            END;
; 1020          2052  2        END;
; 1021          2053  1 END;


                                                .EXTRN  SYS$WAIT, SYS$GET

                                    01FC 00000 GETQUI_BLOCKING_AST:
                                                .WORD   Save R2,R3,R4,R5,R6,R7,R8                ; 1964
                    58 00000000G    EF   9E 00002           MOVAB   SIGNAL_FILE_ERROR, R8
                    57 00000000'    EF   9E 00009           MOVAB   QUEUE_RAB, R7
                    5E        BC    AE   9E 00010           MOVAB   -68(SP), SP
                              B2    A7   B5 00014           TSTW    QUEUE_FAB+2                      ; 1996
                                    01   12 00017           BNEQ    1$
                                         04 00019           RET
                    56        04    AC   D0 0001A 1$:       MOVL    GQL, R6                          ; 1999
                FCB8  C7      04    A6   D0 0001E           MOVL    4(R6), DIAG_TRACE+28
                              08    A6   B5 00024           TSTW    8(R6)                            ; 2000
                                    0F   13 00027           BEQL    2$
                                         7E D4 00029        CLRL    -(SP)                            ; 2008
                          7E    08    A6   3C 0002B        MOVZWL  8(R6), -(SP)
                              04    A6   DD 0002F           PUSHL   4(R6)
                FFOF  CF            03   FB 00032           CALLS   #3, UPDATE_GETQUI_DATA
                                         04 00037           RET                                      ; 2000
                                    57   DD 00038 2$:       PUSHL   R7                               ; 2018
          00000000G  00             01   FB 0003A           CALLS   #1, SYS$WAIT
```

```
                                 0E              50  E8 00041          BLBS    R0, 3$                                          ;
                                                 57  DD 00044          PUSHL   R7                                              ; 2020
                                     B0          A7  9F 00C46          PUSHAB  QUEUE_FAB
                                 000410B4        8F  DD 00049          PUSHL   #266420                                         ; 2021
                                 68              03  FB 0004F          CALLS   #3, SIGNAL_FILE_ERROR
                          6E             67  0044 8F  28 00052 3$:     MOVC3   #68, QUEUE_RAB, AST_QUEUE_RAB                   ; 2023
                      00000000G          EF      00  FB 00058          CALLS   #0, ALLOCATE_MEMORY                             ; 2029
                                         52      50  D0 0005F          MOVL    R0, REC
                                   30    AE  04    A6  9E 00062          MOVAB   4(R6), AST_QUEUE_RAB+48                         ; 2030
                                0A FE9C  C7        03  E1 00067          BBC     #3, FLAGS, 4$                                   ; 2031
                                   04    AE  00100008 8F  D0 0006D          MOVL    #1048584, AST_QUEUE_RAB+4                       ; 2032
                                                 03  11 00075          BRB     5$
                                     04    AE  D4 00077 4$:           CLRL    AST_QUEUE_RAB+4                                 ; 2033
                                   24    AE      52  D0 0007A 5$:     MOVL    REC, AST_QUEUE_RAB+36                           ; 2034
                                         FCFC    C7  D6 0007E          INCL    DIAG_COUNT                                      ; 2035
                                                 5E  DD 00C82          PUSHL   SP                                              ; 2036
                          00000000G              00  FB 00084          CALLS   #1, SYS$GET
                                                 0E  50  E8 0008B          BLBS    R0, 6$
                                                 5E  DD 0008E          PUSHL   SP                                              ; 2038
                                     B0          A7  9F 00090          PUSHAB  QUEUE_FAB
                                 000410B4        8F  DD 00093          PUSHL   #266420                                         ; 2039
                                 68              03  FB 00099          CALLS   #3, SIGNAL_FILE_ERROR
                                                 7E  D4 0009C 6$:           CLRL    -(SP)                                           ; 2045
                                                 52  DD 0009E          PUSHL   REC
                                     04          A6  DD 000A0          PUSHL   4(R6)
                              FE9E   CF          03  FB 000A3          CALLS   #3, UPDATE_GETQUI_DATA
                                                 52  DD 000A8          PUSHL   REC                                             ; 2050
                          00000000G  EF          01  FB 000AA          CALLS   #1, DEALLOCATE_MEMORY
                                                 04  000B1          RET                                                     ; 2053

; Routine Size:  178 bytes,    Routine Base:  CODE + 0437
```

```
;  1023          2054  1 ROUTINE WILD_SEARCH_NAME=
;  1024          2055  1
;  1025          2056  1 !++
;  1026          2057  1 !
;  1027          2058  1 ! FUNCTIONAL DESCRIPTION:
;  1028          2059  1 !       This routine determines if the search name contains wildcards.
;  1029          2060  1 !
;  1030          2061  1 ! INPUT PARAMETERS:
;  1031          2062  1 !       NONE
;  1032          2063  1 !
;  1033          2064  1 ! IMPLICIT INPUTS:
;  1034          2065  1 !       VALUE_SEARCH_NAME       - Descriptor for search name.
;  1035          2066  1 !
;  1036          2067  1 ! OUTPUT PARAMETERS:
;  1037          2068  1 !       NONE
;  1038          2069  1 !
;  1039          2070  1 ! IMPLICIT OUTPUTS:
;  1040          2071  1 !       NONE
;  1041          2072  1 !
;  1042          2073  1 ! ROUTINE VALUE:
;  1043          2074  1 !       True if the search name exists and contains a wildcard character.
;  1044          2075  1 !
;  1045          2076  1 ! SIDE EFFECTS:
;  1046          2077  1 !       NONE
;  1047          2078  1 !
;  1048          2079  1 !--
;  1049          2080  1
;  1050          2081  2 BEGIN
;  1051          2082  2 IF .ITEM_PRESENT[QUI$_SEARCH_NAME]
;  1052          2083  2 THEN
;  1053          2084  3     BEGIN
;  1054          2085  3     IF LOCC(
;  1055          2086  3         %REF(%C'*'),
;  1056          2087  3         VALUE_SEARCH_NAME[SDSC_W_LENGTH], .VALUE_SEARCH_NAME[SDSC_A_POINTER])
;  1057          2088  3     THEN
;  1058          2089  3         RETURN TRUE;
;  1059          2090  3
;  1060          2091  3
;  1061          2092  3     IF LOCC(
;  1062          2093  3         %REF(%C'%'),
;  1063          2094  3         VALUE_SEARCH_NAME[SDSC_W_LENGTH], .VALUE_SEARCH_NAME[SDSC_A_POINTER])
;  1064          2095  3     THEN
;  1065          2096  3         RETURN TRUE;
;  1066          2097  2     END;
;  1067          2098  2
;  1068          2099  2
;  1069          2100  2 FALSE
;  1070          2101  1 END;


                                0004 00000 WILD_SEARCH_NAME:
                                           .WORD   Save R2                                 ; 2054
                    52 00000000'  EF  9E 00002     MOVAB   VALUE_SEARCH_NAME, R2           ;
          12  FCE7  C2            05  E1 00009     BBC     #5, ITEM_PRESENT+9, 2$          ; 2082
```

```
                02   B2          62          2A  3A 0000F         LOCC    #42, VALUE_SEARCH_NAME, -                ; 2087
                                                                         @VALUE_SEARCH_NAME+2
                                             07  12 00014         BNEQ    1$
                02   B2          62          25  3A 00016         LOCC    #37, VALUE_SEARCH_NAME, -                ; 2094
                                                                         @VALUE_SEARCH_NAME+2
                                             04  13 0001B         BEQL    2$
                             50              01  D0 0001D 1$:     MOVL    #1, R0                                   ; 2096
                                                 04 00020         RET
                             50              D4  00021 2$:     CLRL    R0                                       ; 2101
                                                 04 00023         RET

; Routine Size:  36 bytes,    Routine Base:  CODE + 04E9
```

```
;  1072     2102  1 ROUTINE RETURN_PARAMETERS(SRB,SJH): NOVALUE=
;  1073     2103  1
;  1074     2104  1 !++
;  1075     2105  1 !
;  1076     2106  1 ! FUNCTIONAL DESCRIPTION:
;  1077     2107  1 !       This routine returns the QUI$_PARAMETER_i items if required.
;  1078     2108  1 !
;  1079     2109  1 ! INPUT PARAMETERS:
;  1080     2110  1 !       SRB             - Pointer to SRB.
;  1081     2111  1 !       SJH             - Pointer to SJH.
;  1082     2112  1 !
;  1083     2113  1 ! IMPLICIT INPUTS:
;  1084     2114  1 !       NONE
;  1085     2115  1 !
;  1086     2116  1 ! OUTPUT PARAMETERS:
;  1087     2117  1 !       NONE
;  1088     2118  1 !
;  1089     2119  1 ! IMPLICIT OUTPUTS:
;  1090     2120  1 !       NONE
;  1091     2121  1 !
;  1092     2122  1 ! ROUTINE VALUE:
;  1093     2123  1 !       NONE
;  1094     2124  1 !
;  1095     2125  1 ! SIDE EFFECTS:
;  1096     2126  1 !       NONE
;  1097     2127  1 !
;  1098     2128  1 !--
;  1099     2129  1
;  1100     2130  2 BEGIN
;  1101     2131  2 MAP
;  1102     2132  2         SRB:            REF BBLOCK,     ! Pointer to SRB
;  1103     2133  2         SJH:            REF BBLOCK;     ! Pointer to SJH
;  1104     2134  2 LOCAL
;  1105     2135  2         A:              REF BBLOCK,
;  1106     2136  2         E,
;  1107     2137  2         ITEM_CODE,
;  1108     2138  2         BUFFER:         BBLOCK[1024];
;  1109     2139  2
;  1110     2140  2
;  1111     2141  2 FETCH_VARIABLE_DATA(
;  1112     2142  2     SJH$S_PARAMETERS, SJH[SJH$T_PARAMETERS],
;  1113     2143  2     %ALLOCATION(BUFFER), BUFFER);
;  1114     2144  2 A = BUFFER;
;  1115     2145  2 E = .A + .BBLOCK[SJH[SJH$T_PARAMETERS], FVDF_LENGTH];
;  1116     2146  2
;  1117     2147  2
;  1118     2148  2 INCR ITEM_CODE FROM QUI$_PARAMETER_1 TO QUI$_PARAMETER_8 DO
;  1119     2149  3     BEGIN
;  1120     2150  3     LOCAL
;  1121     2151  3         I,
;  1122     2152  3         L;
;  1123     2153  3
;  1124     2154  3
;  1125     2155  3     IF .A LSSA .E
;  1126     2156  3     THEN
;  1127     2157  4         BEGIN
;  1128     2158  4         L = .A[0,0,16,0];
```

```
;  1129     2159  4          A = .A + 2;
;  1130     2160  4          END
;  1131     2161  3      ELSE
;  1132     2162  3          L = 0;
;  1133     2163  3
;  1134     2164  3
;  1135     2165  3      ! Create an output item descriptor in the SRB.
;  1136     2166  3      !
;  1137     2167  3      I = LOCATE_SRB_OUTPUT_ITEM(
;  1138     2168  3          .SRB,
;  1139     2169  3          .ITEM_CODE,
;  1140     2170  3          VALUE_GETQUI_BASE + .ITEM_CODE * ODSC_S_ENTRY);
;  1141     2171  3      IF .I NEQ 0
;  1142     2172  3      THEN
;  1143     2173  4          BEGIN
;  1144     2174  4          CH$MOVE(.L, .A, .I);
;  1145     2175  4          COMPLETE_SRB_OUTPUT_ITEM(.SRB, .L);
;  1146     2176  3          END;
;  1147     2177  3
;  1148     2178  3
;  1149     2179  3      A = .A + .L;
;  1150     2180  2      END;
;  1151     2181  1  END;


                                03FC 00000 RETURN_PARAMETERS:
                                           .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9          ; 2102
                    5E    FC00  CE  9E 00002       MOVAB   -1024(SP), SP                 ;
                                5E  DD 00007       PUSHL   SP                            ; 2142
                    7E    0400  8F  3C 00009       MOVZWL  #1024, -(SP)                  ;
                    52      08  AC  D0 0000E       MOVL    SJH, R2                       ;
                          01B2  C2  9F 00012       PUSHAB  434(R2)                       ;
                                20  DD 00016       PUSHL   #32                           ;
          00000000G   EF        04  FB 00018       CALLS   #4, FETCH_VARIABLE_DATA       ;
                    58          6E  9E 0001F       MOVAB   BUFFER, A                     ; 2144
                    59    01B2  C2  3C 00022       MOVZWL  434(R2), E                    ; 2145
                    59          58  C0 00027       ADDL2   A, E                          ;
                    56          3A  D0 0002A       MOVL    #58, ITEM_CODE                ; 2168
                    59          58  D1 0002D 1$:   CMPL    A, E                          ; 2155
                                05  1E 00030       BGEQU   2$                            ;
                    57          88  3C 00032       MOVZWL  (A)+, L                       ; 2158
                                02  11 00035       BRB     3$                            ; 2155
                                57  D4 00037 2$:   CLRL    L                             ; 2162
          50        56          0A  C5 00039 3$:   MULL3   #10, ITEM_CODE, R0            ; 2170
                    00000000'EF 40  9F 0003D       PUSHAB  VALUE_GETQUI_BASE[R0]         ;
                                56  DD 00044       PUSHL   ITEM_CODE                     ; 2169
                                04  AC  DD 00046   PUSHL   SRB                           ; 2168
          00000000G   EF        03  FB 00049       CALLS   #3, LOCATE_SRB_OUTPUT_ITEM    ;
                                50  D5 00050       TSTL    I                             ; 2171
                                10  13 00052       BEQL    4$                            ;
          60        68          57  28 00054       MOVC3   L, (A), (I)                   ; 2174
                                57  DD 00058       PUSHL   L                             ; 2175
                                04  AC  DD 0005A   PUSHL   SRB                           ;
          00000000G   EF        02  FB 0005D       CALLS   #2, COMPLETE_SRB_OUTPUT_ITEM  ;
```

```
                58              57  C0 00064 4$:    ADDL2   L, A                          ; 2179
             BE 56 00000041     8F  F3 00067        AOBLEQ  #65, ITEM_CODE, 1$           ; 2148
                                    04 0006F        RET                                  ; 2181

; Routine Size:  112 bytes,    Routine Base:  CODE + 050D
```

```
;  1153     2182  1 ROUTINE RETURN_RESULT(GQC,TABLE,ACCESSIBLE,REC_N1,REC_1,REC_N2,REC_2,REC_N3,REC_3)=
;  1154     2183  1
;  1155     2184  1 !++
;  1156     2185  1 !
;  1157     2186  1 ! FUNCTIONAL DESCRIPTION:
;  1158     2187  1 !       This routine converts the values in one or more queue records to the
;  1159     2188  1 !       SRB format and returns the response to the user.
;  1160     2189  1 !
;  1161     2190  1 ! INPUT PARAMETERS:
;  1162     2191  1 !       GQC             - Pointer to $GETQUI context block.
;  1163     2192  1 !       TABLE           - Pointer to table describing possible outputs.
;  1164     2193  1 !       ACCESSIBLE      - True if caller has read access to protected fields.
;  1165     2194  1 !       REC_N1          - Record numbers and pointers to queue records.
;  1166     2195  1 !       REC_1           -
;  1167     2196  1 !       REC_N2          -
;  1168     2197  1 !       REC_2           -
;  1169     2198  1 !       REC_N3          -
;  1170     2199  1 !       REC_3           -
;  1171     2200  1 !
;  1172     2201  1 ! IMPLICIT INPUTS:
;  1173     2202  1 !       NONE
;  1174     2203  1 !
;  1175     2204  1 ! OUTPUT PARAMETERS:
;  1176     2205  1 !       NONE
;  1177     2206  1 !
;  1178     2207  1 ! IMPLICIT OUTPUTS:
;  1179     2208  1 !       NONE
;  1180     2209  1 !
;  1181     2210  1 ! ROUTINE VALUE:
;  1182     2211  1 !       0, to inhibit central message response.
;  1183     2212  1 !
;  1184     2213  1 ! SIDE EFFECTS:
;  1185     2214  1 !       NONE
;  1186     2215  1 !
;  1187     2216  1 !--
;  1188     2217  1
;  1189     2218  2 BEGIN
;  1190     2219  2 MAP
;  1191     2220  2         GQC:            REF BBLOCK,     ! Pointer to $GETQUI context block
;  1192     2221  2         REC_1:          REF BBLOCK,     ! Pointer to block
;  1193     2222  2         REC_2:          REF BBLOCK,     !     ...
;  1194     2223  2         REC_3:          REF BBLOCK;     !     ...
;  1195     2224  2 LOCAL
;  1196     2225  2         T:              REF BBLOCK,     ! Cursor for table
;  1197     2226  2         SRB:            BBLOCK[8192];   ! Local SRB
;  1198     2227  2 BUILTIN
;  1199     2228  2         ACTUALPARAMETER;
;  1200     2229  2
;  1201     2230  2
;  1202     2231  2 ! Create an SRB to return the response.
;  1203     2232  2 !
;  1204     2233  2 CREATE_SRB(SRB);
;  1205     2234  2
;  1206     2235  2
;  1207     2236  2 ! Loop over each table element.
;  1208     2237  2 !
;  1209     2238  2 T = .TABLE;
```

```
;  1210     2239  2 WHILE .T[B_ITEM_CODE] NEQ 0 DO
;  1211     2240  3     BEGIN
;  1212     2241  3     IF .ITEM_PRESENT[.T[B_ITEM_CODE]]
;  1213     2242  3     THEN
;  1214     2243  4         BEGIN
;  1215     2244  4         LOCAL
;  1216     2245  4             I:          REF BBLOCK,     ! Pointer to SRB storage area
;  1217     2246  4             F:          REF BBLOCK,     ! Pointer to value in queue block
;  1218     2247  4             S;                          ! Size of value
;  1219     2248  4
;  1220     2249  4
;  1221     2250  4         ! Create an output item descriptor in the SRB.
;  1222     2251  4         !
;  1223     2252  4         I = LOCATE_SRB_OUTPUT_ITEM(
;  1224     2253  4             SRB,
;  1225     2254  4             .T[B_ITEM_CODE],
;  1226     2255  4             VALUE_GETQUI_BASE + .T[B_ITEM_CODE] * ODSC_S_ENTRY);
;  1227     2256  4
;  1228     2257  4
;  1229     2258  4         ! Get the input value pointer and size.
;  1230     2259  4         !
;  1231     2260  4         F = ACTUALPARAMETER(.T[B_PARAMETER]) + .T[W_BYTE_OFFSET];
;  1232     2261  4         S = 0;
;  1233     2262  4
;  1234     2263  4
;  1235     2264  4         ! Dispatch to store the value in the SRB area and determine its
;  1236     2265  4         ! actual size.
;  1237     2266  4         !
;  1238     2267  4         IF NOT .T[V_PROTECTED] OR .ACCESSIBLE
;  1239     2268  4         THEN
;  1240     2269  5             BEGIN
;  1241     2270  5             CASE .T[B_CASE] FROM K_COPY_ASCIC TO K_QUEUE_STATUS OF
;  1242     2271  5                 SET
;  1243     2272  5
;  1244     2273  5
;  1245     2274  5                 [K_COPY_ASCIC]:
;  1246     2275  6                     BEGIN
;  1247     2276  6                     !
;  1248     2277  6                     ! Copy the counted ASCII value at F.
;  1249     2278  6                     !
;  1250     2279  6                     S = CH$RCHAR(.F);
;  1251     2280  6                     CH$MOVE(.S, .F + 1, .I);
;  1252     2281  5                     END;
;  1253     2282  5
;  1254     2283  5
;  1255     2284  5                 [K_COPY_FORM_NAME]:
;  1256     2285  6                     BEGIN
;  1257     2286  6                     !
;  1258     2287  6                     ! Copy the name of the form pointed to by the longword
;  1259     2288  6                     ! at F.
;  1260     2289  6                     !
;  1261     2290  6                     LOCAL
;  1262     2291  6                         SFM_N,
;  1263     2292  6                         SFM:            REF BBLOCK;
;  1264     2293  6
;  1265     2294  6
;  1266     2295  6                     SFM_N = ..F;
```

```
;  1267     2296  6                IF .SFM_N NEQ 0
;  1268     2297  6                THEN
;  1269     2298  7                    BEGIN
;  1270     2299  7                    SFM = READ_RECORD(.SFM_N);
;  1271     2300  7                    S = CH$RCHAR(SFM[SFM$T_NAME]);
;  1272     2301  7                    CH$MOVE(.S, SFM[SFM$T_NAME] + 1, .I);
;  1273     2302  7                    RELEASE_RECORD(.SFM_N);
;  1274     2303  6                    END;
;  1275     2304  5                END;
;  1276     2305  5
;  1277     2306  5
;  1278     2307  5            [K_COPY_QUEUE_NAME]:
;  1279     2308  6                BEGIN
;  1280     2309  6                !
;  1281     2310  6                ! Copy the name of the queue pointed to by the longword
;  1282     2311  6                ! at F.
;  1283     2312  6                !
;  1284     2313  6                LOCAL
;  1285     2314  6                    SMQ_N,
;  1286     2315  6                    SMQ:            REF BBLOCK;
;  1287     2316  6
;  1288     2317  6
;  1289     2318  6                SMQ_N = ..F;
;  1290     2319  6                IF .SMQ_N NEQ 0
;  1291     2320  6                THEN
;  1292     2321  7                    BEGIN
;  1293     2322  7                    SMQ = READ_RECORD(.SMQ_N);
;  1294     2323  7                    S = CH$RCHAR(SMQ[SMQ$T_NAME]);
;  1295     2324  7                    CH$MOVE(.S, SMQ[SMQ$T_NAME] + 1, .I);
;  1296     2325  7                    RELEASE_RECORD(.SMQ_N);
;  1297     2326  6                    END;
;  1298     2327  5                END;
;  1299     2328  5
;  1300     2329  5
;  1301     2330  5            [K_COPY_SDSC]:
;  1302     2331  6                BEGIN
;  1303     2332  6                !
;  1304     2333  6                ! Copy the value described by the short descriptor at F.
;  1305     2334  6                !
;  1306     2335  6                S = .F[SDSC_W_LENGTH];
;  1307     2336  6                CH$MOVE(.S, .F[SDSC_A_POINTER], .I);
;  1308     2337  5                END;
;  1309     2338  5
;  1310     2339  5
;  1311     2340  5            [K_COPY_TRIMMED]:
;  1312     2341  6                BEGIN
;  1313     2342  6                !
;  1314     2343  6                ! Copy the value at F of length S, trimmed of trailing
;  1315     2344  6                ! spaces and null characters.
;  1316     2345  6                !
;  1317     2346  6                S = .T[W_SIZE];
;  1318     2347  6                WHILE .S NEQ 0 DO
;  1319     2348  7                    BEGIN
;  1320     2349  7                    IF CH$RCHAR(.F + .S - 1) NEQ %C' '
;  1321     2350  7                    AND CH$RCHAR(.F + .S - 1) NEQ 0
;  1322     2351  7                        THEN EXITLOOP;
;  1323     2352  7                    S = .S - 1;
```

```
;  1324     2353  6                    END;
;  1325     2354  6                CH$MOVE(.S, .F, .I);
;  1326     2355  5                END;
;  1327     2356  5
;  1328     2357  5
;  1329     2358  5            [K_COPY_VALUE]:
;  1330     2359  6                BEGIN
;  1331     2360  6                !
;  1332     2361  6                ! Copy the value at F of length S.
;  1333     2362  6                !
;  1334     2363  6                S = .T[W_SIZE];
;  1335     2364  6                CH$MOVE(.S, .F, .I);
;  1336     2365  5                END;
;  1337     2366  5
;  1338     2367  5
;  1339     2368  5            [K_COPY_VARIABLE]:
;  1340     2369  6                BEGIN
;  1341     2370  6                !
;  1342     2371  6                ! Copy the variable data field at F of length S.
;  1343     2372  6                !
;  1344     2373  6                FETCH_VARIABLE_DATA(.T[W_SIZE], .F, 512, .I);
;  1345     2374  6                S = .F[FVDF_LENGTH];
;  1346     2375  5                END;
;  1347     2376  5
;  1348     2377  5
;  1349     2378  5            [K_COMPLETED_BLOCKS]:
;  1350     2379  6                BEGIN
;  1351     2380  6                !
;  1352     2381  6                ! Generate the completed blocks item.
;  1353     2382  6                !
;  1354     2383  6                BIND
;  1355     2384  6                    SMQ_N=  REC_N1,
;  1356     2385  6                    SMQ=    REC_1:          REF BBLOCK,
;  1357     2386  6                    SJH_N=  REC_N2,
;  1358     2387  6                    SJH=    REC_2:          REF BBLOCK;
;  1359     2388  6
;  1360     2389  6
;  1361     2390  6                .I = 0;
;  1362     2391  6                IF NOT .SMQ[SMQ$V_BATCH]
;  1363     2392  6                THEN
;  1364     2393  6                    .I = .SJH[SJH$L_COMPLETED_BLOCKS] + SYMBIONT_COMPLETED_BLOCKS(.SJH);
;  1365     2394  6                S = 4;
;  1366     2395  5                END;
;  1367     2396  5
;  1368     2397  5
;  1369     2398  5            [K_FILE_FLAGS]:
;  1370     2399  6                BEGIN
;  1371     2400  6                !
;  1372     2401  6                ! Generate the file flags item.
;  1373     2402  6                !
;  1374     2403  6                BIND
;  1375     2404  6                    SMQ_N=  REC_N1,
;  1376     2405  6                    SMQ=    REC_1:          REF BBLOCK,
;  1377     2406  6                    SJH_N=  REC_N2,
;  1378     2407  6                    SJH=    REC_2:          REF BBLOCK,
;  1379     2408  6                    SQR_N=  REC_N3,
;  1380     2409  6                    SQR=    REC_3:          REF BBLOCK;
```

```
;  1381     2410  6
;  1382     2411  6
;  1383     2412  6                    .I = 0;
;  1384     2413  6                    IF .SQR[SQR$V_FILE_BURST]
;  1385     2414  6                        THEN I[QUI$V_FILE_BURST] = TRUE;
;  1386     2415  6                    IF .SQR[SQR$V_FILE_BURST_EXPLICIT]
;  1387     2416  6                        THEN I[QUI$V_FILE_BURST_EXP] = TRUE;
;  1388     2417  6                    IF .SQR[SQR$V_DELETE_FILE]
;  1389     2418  6                        THEN I[QUI$V_FILE_DELETE] = TRUE;
;  1390     2419  6                    IF .SQR[SQR$V_DOUBLE_SPACE]
;  1391     2420  6                        THEN I[QUI$V_FILE_DOUBLE_SPACE] = TRUE;
;  1392     2421  6                    IF .SQR[SQR$V_FILE_FLAG]
;  1393     2422  6                        THEN I[QUI$V_FILE_FLAG] = TRUE;
;  1394     2423  6                    IF .SQR[SQR$V_FILE_FLAG_EXPLICIT]
;  1395     2424  6                        THEN I[QUI$V_FILE_FLAG_EXP] = TRUE;
;  1396     2425  6                    IF .SQR[SQR$V_FILE_TRAILER]
;  1397     2426  6                        THEN I[QUI$V_FILE_TRAILER] = TRUE;
;  1398     2427  6                    IF .SQR[SQR$V_FILE_TRAILER_EXPLICIT]
;  1399     2428  6                        THEN I[QUI$V_FILE_TRAILER_EXP] = TRUE;
;  1400     2429  6                    IF .SQR[SQR$V_PAGE_HEADER]
;  1401     2430  6                        THEN I[QUI$V_FILE_PAGE_HEADER] = TRUE;
;  1402     2431  6                    IF .SQR[SQR$V_PAGINATE]
;  1403     2432  6                        THEN I[QUI$V_FILE_PAGINATE] = TRUE;
;  1404     2433  6                    IF .SQR[SQR$V_PAGINATE_EXPLICIT]
;  1405     2434  6                        THEN I[QUI$V_FILE_PAGINATE_EXP] = TRUE;
;  1406     2435  6                    IF .SQR[SQR$V_PASSALL]
;  1407     2436  6                        THEN I[QUI$V_FILE_PASSALL] = TRUE;
;  1408     2437  6                    S = 4;
;  1409     2438  5                    END;
;  1410     2439  5
;  1411     2440  5
;  1412     2441  5                [K_FILE_STATUS]:
;  1413     2442  6                    BEGIN
;  1414     2443  6                    !
;  1415     2444  6                    ! Generate the file status item.
;  1416     2445  6                    !
;  1417     2446  6                    BIND
;  1418     2447  6                        SMQ_N=  REC_N1,
;  1419     2448  6                        SMQ=    REC_1:          REF BBLOCK,
;  1420     2449  6                        SJH_N=  REC_N2,
;  1421     2450  6                        SJH=    REC_2:          REF BBLOCK,
;  1422     2451  6                        SQR_N=  REC_N3,
;  1423     2452  6                        SQR=    REC_3:          REF BBLOCK;
;  1424     2453  6
;  1425     2454  6
;  1426     2455  6                    .I = 0;
;  1427     2456  6                    IF .SJH[SJH$L_CURRENT_FILE_CHKPT] EQL .SQR_N
;  1428     2457  6                        THEN I[QUI$V_FILE_CHECKPOINTED] = TRUE;
;  1429     2458  6                    IF .SJH[SJH$V_EXECUTING]
;  1430     2459  6                    AND .SJH[SJH$L_CURRENT_FILE_LINK] EQL .SQR_N
;  1431     2460  6                        THEN I[QUI$V_FILE_EXECUTING] = TRUE;
;  1432     2461  6                    S = 4;
;  1433     2462  5                    END;
;  1434     2463  5
;  1435     2464  5
;  1436     2465  5                [K_FORM_FLAGS]:
;  1437     2466  6                    BEGIN
```

```
;  1438     2467  6                    !
;  1439     2468  6                    ! Generate the form flags item.
;  1440     2469  6                    !
;  1441     2470  6                    BIND
;  1442     2471  6                        SFM_N=  REC_N1,
;  1443     2472  6                        SFM=    REC_1:          REF BBLOCK;
;  1444     2473  6
;  1445     2474  6
;  1446     2475  6                    .I = 0;
;  1447     2476  6                    IF .SFM[SFM$V_SHEET_FEED]
;  1448     2477  6                        THEN I[QUI$V_FORM_SHEET_FEED] = TRUE;
;  1449     2478  6                    IF .SFM[SFM$V_TRUNCATE]
;  1450     2479  6                        THEN I[QUI$V_FORM_TRUNCATE] = TRUE;
;  1451     2480  6                    IF .SFM[SFM$V_WRAP]
;  1452     2481  6                        THEN I[QUI$V_FORM_WRAP] = TRUE;
;  1453     2482  6                    S = 4;
;  1454     2483  5                    END;
;  1455     2484  5
;  1456     2485  5
;  1457     2486  5                [K_GENERIC_TARGET]:
;  1458     2487  6                    BEGIN
;  1459     2488  6                    !
;  1460     2489  6                    ! Copy the names of all queues pointed to by the generic
;  1461     2490  6                    ! target record pointed to by the longword at F.
;  1462     2491  6                    !
;  1463     2492  6                    LOCAL
;  1464     2493  6                        AUX_N,
;  1465     2494  6                        AUX:            REF BBLOCK;
;  1466     2495  6
;  1467     2496  6
;  1468     2497  6                    AUX_N = ..F;
;  1469     2498  6                    IF .AUX_N NEQ 0
;  1470     2499  6                    THEN
;  1471     2500  7                        BEGIN
;  1472     2501  7                        AUX = READ_RECORD(.AUX_N);
;  1473     2502  7                        INCR J FROM 1 TO .VECTOR[AUX[SYM$T_DATA], 0] DO
;  1474     2503  8                            BEGIN
;  1475     2504  8                            LOCAL
;  1476     2505  8                                LS,
;  1477     2506  8                                SMQ_N,
;  1478     2507  8                                SMQ:            REF BBLOCK;
;  1479     2508  8
;  1480     2509  8                            SMQ_N = .VECTOR[AUX[SYM$T_DATA], .J];
;  1481     2510  8                            SMQ = READ_RECORD(.SMQ_N);
;  1482     2511  8                            LS = CH$RCHAR(SMQ[SMQ$T_NAME]);
;  1483     2512  8                            I = CH$MOVE(.LS, SMQ[SMQ$T_NAME] + 1, .I);
;  1484     2513  8                            CH$WCHAR_A(%C',', I);
;  1485     2514  8                            S = .S + .LS + 1;
;  1486     2515  8                            RELEASE_RECORD(.SMQ_N);
;  1487     2516  7                            END;
;  1488     2517  7                        S = .S - 1;
;  1489     2518  7                        RELEASE_RECORD(.AUX_N);
;  1490     2519  6                        END;
;  1491     2520  5                    END;
;  1492     2521  5
;  1493     2522  5
;  1494     2523  5                [K_INTERVENING_BLOCKS]:
```

```
;  1495     2524  6                BEGIN
;  1496     2525  6                !
;  1497     2526  6                ! Copy the number of intervening pending blocks.
;  1498     2527  6                !
;  1499     2528  6                .I = .GQC[GQC_INTERVENING_BLOCKS];
;  1500     2529  6                S = 4;
;  1501     2530  5                END;
;  1502     2531  5
;  1503     2532  5
;  1504     2533  5           [K_INTERVENING_JOBS]:
;  1505     2534  6                BEGIN
;  1506     2535  6                !
;  1507     2536  6                ! Copy the number of intervening pending jobs.
;  1508     2537  6                !
;  1509     2538  6                .I = .GQC[GQC_INTERVENING_JOBS];
;  1510     2539  6                S = 4;
;  1511     2540  5                END;
;  1512     2541  5
;  1513     2542  5
;  1514     2543  5           [K_JOB_FLAGS]:
;  1515     2544  6                BEGIN
;  1516     2545  6                !
;  1517     2546  6                ! Generate the job flags item.
;  1518     2547  6                !
;  1519     2548  6                BIND
;  1520     2549  6                    SMQ_N=  REC_N1,
;  1521     2550  6                    SMQ=    REC_1:          REF BBLOCK,
;  1522     2551  6                    SJH_N=  REC_N2,
;  1523     2552  6                    SJH=    REC_2:          REF BBLOCK;
;  1524     2553  6
;  1525     2554  6
;  1526     2555  6                .I = 0;
;  1527     2556  6                IF .SJH[SJH$V_CPU_MAXIMUM]
;  1528     2557  6                    THEN I[QUI$V_JOB_CPU_LIMIT] = TRUE;
;  1529     2558  6                IF .SJH[SJH$V_FILE_BURST]
;  1530     2559  6                    THEN I[QUI$V_JOB_FILE_BURST] = TRUE;
;  1531     2560  6                IF .SJH[SJH$V_FILE_BURST_ONE]
;  1532     2561  6                    THEN I[QUI$V_JOB_FILE_BURST_ONE] = TRUE;
;  1533     2562  6                IF .SJH[SJH$V_FILE_BURST_EXPLICIT]
;  1534     2563  6                    THEN I[QUI$V_JOB_FILE_BURST_EXP] = TRUE;
;  1535     2564  6                IF .SJH[SJH$V_FILE_FLAG]
;  1536     2565  6                    THEN I[QUI$V_JOB_FILE_FLAG] = TRUE;
;  1537     2566  6                IF .SJH[SJH$V_FILE_FLAG_ONE]
;  1538     2567  6                    THEN I[QUI$V_JOB_FILE_FLAG_ONE] = TRUE;
;  1539     2568  6                IF .SJH[SJH$V_FILE_FLAG_EXPLICIT]
;  1540     2569  6                    THEN I[QUI$V_JOB_FILE_FLAG_EXP] = TRUE;
;  1541     2570  6                IF .SJH[SJH$V_FILE_TRAILER]
;  1542     2571  6                    THEN I[QUI$V_JOB_FILE_TRAILER] = TRUE;
;  1543     2572  6                IF .SJH[SJH$V_FILE_TRAILER_ONE]
;  1544     2573  6                    THEN I[QUI$V_JOB_FILE_TRAILER_ONE] = TRUE;
;  1545     2574  6                IF .SJH[SJH$V_FILE_TRAILER_EXPLICIT]
;  1546     2575  6                    THEN I[QUI$V_JOB_FILE_TRAILER_EXP] = TRUE;
;  1547     2576  6                IF .SJH[SJH$V_LOG_DELETE]
;  1548     2577  6                    THEN I[QUI$V_JOB_LOG_DELETE] = TRUE;
;  1549     2578  6                IF .SJH[SJH$V_LOG_NULL]
;  1550     2579  6                    THEN I[QUI$V_JOB_LOG_NULL] = TRUE;
;  1551     2580  6                IF .SJH[SJH$V_LOG_SPOOL]
```

```
;  1552     2581  6                    THEN I[QUI$V_JOB_LOG_SPOOL] = TRUE;
;  1553     2582  6                IF .SJH[SJH$V_LOWERCASE]
;  1554     2583  6                    THEN I[QUI$V_JOB_LOWERCASE] = TRUE;
;  1555     2584  6                IF .SJH[SJH$V_NOTIFY]
;  1556     2585  6                    THEN I[QUI$V_JOB_NOTIFY] = TRUE;
;  1557     2586  6                IF .SJH[SJH$V_PAGINATE]
;  1558     2587  6                    THEN I[QUI$V_JOB_FILE_PAGINATE] = TRUE;
;  1559     2588  6                IF .SJH[SJH$V_PAGINATE_EXPLICIT]
;  1560     2589  6                    THEN I[QUI$V_JOB_FILE_PAGINATE_EXP] = TRUE;
;  1561     2590  6                IF .SJH[SJH$V_RESTART]
;  1562     2591  6                    THEN I[QUI$V_JOB_RESTART] = TRUE;
;  1563     2592  6                IF .SJH[SJH$V_WSDEFAULT]
;  1564     2593  6                    THEN I[QUI$V_JOB_WSDEFAULT] = TRUE;
;  1565     2594  6                IF .SJH[SJH$V_WSEXTENT]
;  1566     2595  6                    THEN I[QUI$V_JOB_WSEXTENT] = TRUE;
;  1567     2596  6                IF .SJH[SJH$V_WSQUOTA]
;  1568     2597  6                    THEN I[QUI$V_JOB_WSQUOTA] = TRUE;
;  1569     2598  6                S = 4;
;  1570     2599  5                END;
;  1571     2600  5
;  1572     2601  5
;  1573     2602  5            [K_JOB_STATUS]:
;  1574     2603  6                BEGIN
;  1575     2604  6                !
;  1576     2605  6                ! Generate the job status item.
;  1577     2606  6                !
;  1578     2607  6                BIND
;  1579     2608  6                    SMQ_N=  REC_N1,
;  1580     2609  6                    SMQ=    REC_1:          REF BBLOCK,
;  1581     2610  6                    SJH_N=  REC_N2,
;  1582     2611  6                    SJH=    REC_2:          REF BBLOCK;
;  1583     2612  6
;  1584     2613  6
;  1585     2614  6                .I = 0;
;  1586     2615  6                IF .SJH[SJH$V_ABORTED] OR .SJH[SJH$V_ABORTING]
;  1587     2616  6                    THEN I[QUI$V_JOB_ABORTING] = TRUE;
;  1588     2617  6                IF .SJH[SJH$V_EXECUTING] AND NOT .SJH[SJH$V_FILE_STARTING]
;  1589     2618  6                    THEN I[QUI$V_JOB_EXECUTING] = TRUE;
;  1590     2619  6                IF .SJH[SJH$V_HOLDING]
;  1591     2620  6                    THEN I[QUI$V_JOB_HOLDING] = TRUE;
;  1592     2621  6                IF NOT .ACCESSIBLE
;  1593     2622  6                    THEN I[QUI$V_JOB_INACCESSIBLE] = TRUE;
;  1594     2623  6                IF .SJH[SJH$V_REFUSED]
;  1595     2624  6                    THEN I[QUI$V_JOB_REFUSED] = TRUE;
;  1596     2625  6                IF .SJH[SJH$V_REQUEUE]
;  1597     2626  6                    THEN I[QUI$V_JOB_REQUEUE] = TRUE;
;  1598     2627  6                IF .SJH[SJH$V_RESTARTING]
;  1599     2628  6                    THEN I[QUI$V_JOB_RESTARTING] = TRUE;
;  1600     2629  6                IF .SJH[SJH$V_RETAINED]
;  1601     2630  6                    THEN I[QUI$V_JOB_RETAINED] = TRUE;
;  1602     2631  6                IF .SJH[SJH$V_STARTING] OR .SJH[SJH$V_FILE_STARTING]
;  1603     2632  6                    THEN I[QUI$V_JOB_STARTING] = TRUE;
;  1604     2633  6                IF .GQC[GQC_SJH_0] EQL GQC_K_TIMER
;  1605     2634  6                    THEN I[QUI$V_JOB_TIMED] = TRUE;
;  1606     2635  6                S = 4;
;  1607     2636  5                END;
;  1608     2637  5
```

```
;1609     2638  5
;1610     2639  5          [K_QUEUE_FLAGS]:
;1611     2640  6              BEGIN
;1612     2641  6              !
;1613     2642  6              ! Generate the queue flags item.
;1614     2643  6              !
;1615     2644  6              BIND
;1616     2645  6                  SMQ_N=  REC_N1,
;1617     2646  6                  SMQ=    REC_1:          REF BBLOCK;
;1618     2647  6
;1619     2648  6
;1620     2649  6              .I = 0;
;1621     2650  6              IF .SMQ[SMQ$V_BATCH]
;1622     2651  6                  THEN I[QUI$V_QUEUE_BATCH] = TRUE;
;1623     2652  6              IF .SMQ[SMQ$V_CPU_DEFAULT]
;1624     2653  6                  THEN I[QUI$V_QUEUE_CPU_DEFAULT] = TRUE;
;1625     2654  6              IF .SMQ[SMQ$V_CPU_MAXIMUM]
;1626     2655  6                  THEN I[QUI$V_QUEUE_CPU_LIMIT] = TRUE;
;1627     2656  6              IF .SMQ[SMQ$V_FILE_BURST]
;1628     2657  6                  THEN I[QUI$V_QUEUE_FILE_BURST] = TRUE;
;1629     2658  6              IF .SMQ[SMQ$V_FILE_BURST_ONE]
;1630     2659  6                  THEN I[QUI$V_QUEUE_FILE_BURST_ONE] = TRUE;
;1631     2660  6              IF .SMQ[SMQ$V_FILE_FLAG]
;1632     2661  6                  THEN I[QUI$V_QUEUE_FILE_FLAG] = TRUE;
;1633     2662  6              IF .SMQ[SMQ$V_FILE_FLAG_ONE]
;1634     2663  6                  THEN I[QUI$V_QUEUE_FILE_FLAG_ONE] = TRUE;
;1635     2664  6              IF .SMQ[SMQ$V_FILE_TRAILER]
;1636     2665  6                  THEN I[QUI$V_QUEUE_FILE_TRAILER] = TRUE;
;1637     2666  6              IF .SMQ[SMQ$V_FILE_TRAILER_ONE]
;1638     2667  6                  THEN I[QUI$V_QUEUE_FILE_TRAILER_ONE] = TRUE;
;1639     2668  6              IF .SMQ[SMQ$V_GENERIC_QUEUE]
;1640     2669  6                  THEN I[QUI$V_QUEUE_GENERIC] = TRUE;
;1641     2670  6              IF .SMQ[SMQ$V_GENERIC_SELECTION]
;1642     2671  6                  THEN I[QUI$V_QUEUE_GENERIC_SELECTION] = TRUE;
;1643     2672  6              IF .SMQ[SMQ$V_JOB_BURST]
;1644     2673  6                  THEN I[QUI$V_QUEUE_JOB_BURST] = TRUE;
;1645     2674  6              IF .SMQ[SMQ$V_JOB_SIZE_SCHEDULING]
;1646     2675  6                  THEN I[QUI$V_QUEUE_JOB_SIZE_SCHED] = TRUE;
;1647     2676  6              IF .SMQ[SMQ$V_JOB_FLAG]
;1648     2677  6                  THEN I[QUI$V_QUEUE_JOB_FLAG] = TRUE;
;1649     2678  6              IF .SMQ[SMQ$V_JOB_TRAILER]
;1650     2679  6                  THEN I[QUI$V_QUEUE_JOB_TRAILER] = TRUE;
;1651     2680  6              IF .SMQ[SMQ$V_PAGINATE]
;1652     2681  6                  THEN I[QUI$V_QUEUE_FILE_PAGINATE] = TRUE;
;1653     2682  6              IF .SMQ[SMQ$V_RETAIN_ALL_JOBS]
;1654     2683  6                  THEN I[QUI$V_QUEUE_RETAIN_ALL] = TRUE;
;1655     2684  6              IF .SMQ[SMQ$V_RETAIN_ERROR_JOBS]
;1656     2685  6                  THEN I[QUI$V_QUEUE_RETAIN_ERROR] = TRUE;
;1657     2686  6              IF .SMQ[SMQ$V_SWAP]
;1658     2687  6                  THEN I[QUI$V_QUEUE_SWAP] = TRUE;
;1659     2688  6              IF .SMQ[SMQ$V_TERMINAL]
;1660     2689  6                  THEN I[QUI$V_QUEUE_TERMINAL] = TRUE;
;1661     2690  6              IF .SMQ[SMQ$V_WSDEFAULT]
;1662     2691  6                  THEN I[QUI$V_QUEUE_WSDEFAULT] = TRUE;
;1663     2692  6              IF .SMQ[SMQ$V_WSEXTENT]
;1664     2693  6                  THEN I[QUI$V_QUEUE_WSEXTENT] = TRUE;
;1665     2694  6              IF .SMQ[SMQ$V_WSQUOTA]
```

```
;  1666     2695  6                    THEN I[QUI$V_QUEUE_WSQUOTA] = TRUE;
;  1667     2696  6                S = 4;
;  1668     2697  5                END;
;  1669     2698  5
;  1670     2699  5
;  1671     2700  5            [K_QUEUE_STATUS]:
;  1672     2701  6                BEGIN
;  1673     2702  6                !
;  1674     2703  6                ! Generate the queue status item.
;  1675     2704  6                !
;  1676     2705  6                BIND
;  1677     2706  6                    SMQ_N=  REC_N1,
;  1678     2707  6                    SMQ=    REC_1:          REF BBLOCK;
;  1679     2708  6
;  1680     2709  6
;  1681     2710  6                .I = 0;
;  1682     2711  6                IF .SMQ[SMQ$V_ALIGNING]
;  1683     2712  6                    THEN I[QUI$V_QUEUE_ALIGNING] = TRUE;
;  1684     2713  6                IF .SMQ[SMQ$B_CURRENT_JOB_COUNT] EQL 0
;  1685     2714  6                    THEN I[QUI$V_QUEUE_IDLE] = TRUE;
;  1686     2715  6                IF .SMQ[SMQ$V_LOWERCASE]
;  1687     2716  6                    THEN I[QUI$V_QUEUE_LOWERCASE] = TRUE;
;  1688     2717  6                IF .SMQ[SMQ$V_OPERATOR_REQUEST]
;  1689     2718  6                    THEN I[QUI$V_QUEUE_OPERATOR_REQUEST] = TRUE;
;  1690     2719  6                IF .SMQ[SMQ$V_PAUSED] AND NOT .SMQ[SMQ$V_ALIGNING] AND NOT .SMQ[SMQ$V_RESUMING]
;  1691     2720  6                    THEN I[QUI$V_QUEUE_PAUSED] = TRUE;
;  1692     2721  6                IF .SMQ[SMQ$V_PAUSING]
;  1693     2722  6                    THEN I[QUI$V_QUEUE_PAUSING] = TRUE;
;  1694     2723  6                IF .SMQ[SMQ$V_REMOTE]
;  1695     2724  6                    THEN I[QUI$V_QUEUE_REMOTE] = TRUE;
;  1696     2725  6                IF .SMQ[SMQ$V_RESETTING]
;  1697     2726  6                    THEN I[QUI$V_QUEUE_RESETTING] = TRUE;
;  1698     2727  6                IF .SMQ[SMQ$V_RESUMING] AND NOT .SMQ[SMQ$V_ALIGNING]
;  1699     2728  6                    THEN I[QUI$V_QUEUE_RESUMING] = TRUE;
;  1700     2729  6                IF .SMQ[SMQ$V_SERVER]
;  1701     2730  6                    THEN I[QUI$V_QUEUE_SERVER] = TRUE;
;  1702     2731  6                IF .SMQ[SMQ$V_STALLED]
;  1703     2732  6                    THEN I[QUI$V_QUEUE_STALLED] = TRUE;
;  1704     2733  6                IF .SMQ[SMQ$V_STARTING]
;  1705     2734  6                    THEN I[QUI$V_QUEUE_STARTING] = TRUE;
;  1706     2735  6                IF .SMQ[SMQ$V_STOPPED]
;  1707     2736  6                    THEN I[QUI$V_QUEUE_STOPPED] = TRUE;
;  1708     2737  6                IF .SMQ[SMQ$V_STOPPING]
;  1709     2738  6                    THEN I[QUI$V_QUEUE_STOPPING] = TRUE;
;  1710     2739  6                IF .SMQ[SMQ$V_UNAVAILABLE]
;  1711     2740  6                    THEN I[QUI$V_QUEUE_UNAVAILABLE] = TRUE;
;  1712     2741  6                S = 4;
;  1713     2742  5                END;
;  1714     2743  5
;  1715     2744  5
;  1716     2745  5                TES;
;  1717     2746  4            END;
;  1718     2747  4
;  1719     2748  4
;  1720     2749  4        ! Finish the output item descriptor.
;  1721     2750  4        !
;  1722     2751  4        COMPLETE_SRB_OUTPUT_ITEM(SRB, .S);
```

```
;  1723     2752  3          END;
;  1724     2753  3
;  1725     2754  3
;  1726     2755  3      ! Advance to next table entry.
;  1727     2756  3      !
;  1728     2757  3      T = .T + K_ENTRY_SIZE;
;  1729     2758  2      END;
;  1730     2759  2
;  1731     2760  2
;  1732     2761  2 ! Special case storing the parameter items.
;  1733     2762  2 !
;  1734     2763  2 IF .BBLOCK[ITEM_PRESENT, 0, QUI$_PARAMETER_1, 8, 0] NEQ 0
;  1735     2764  2 THEN
;  1736     2765  2     RETURN_PARAMETERS(SRB, .REC_2);
;  1737     2766  2
;  1738     2767  2
;  1739     2768  2 ! Cancel the intervening counts.
;  1740     2769  2 !
;  1741     2770  2 GQC[GQC_INTERVENING_BLOCKS] = 0;
;  1742     2771  2 GQC[GQC_INTERVENING_JOBS] = 0;
;  1743     2772  2
;  1744     2773  2
;  1745     2774  2 ! Send the response to the requestor and return zero to inhibit the central
;  1746     2775  2 ! message response.
;  1747     2776  2 !
;  1748     2777  2 SEND_SERVICE_RESPONSE_MESSAGE(SRB, JBC$_NORMAL);
;  1749     2778  2 0
;  1750     2779  1 END;


                                 0FFC 00000 RETURN_RESULT:
                                            .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11          ; 2182
                    5E      DFF8    CE  9E 00002    MOVAB   -8200(SP), SP                         ;
                            08      AE  9F 00007    PUSHAB  SRB                                   ; 2233
        00000000G   EF              01  FB 0000A    CALLS   #1, CREATE_SRB                        ;
                    56      08      AC  D0 00011    MOVL    TABLE, T                              ; 2238
                                    66  95 00015 1$: TSTB    (T)                                   ; 2239
                                    03  12 00017    BNEQ    2$                                    ;
                                0497    31 00019    BRW     124$                                  ;
                    50              66  9A 0001C 2$: MOVZBL  (T), R0                              ; 2241
        03 00000000'EF              50  E0 0001F    BBS     R0, ITEM_PRESENT, 3$                  ;
                                0483    31 00027    BRW     123$                                  ;
                    50              66  9A 0002A 3$: MOVZBL  (T), R0                              ; 2255
                    50              0A  C4 0002D    MULL2   #10, R0                               ;
                       00000000'EF  40  9F 00030    PUSHAB  VALUE_GETQUI_BASE[R0]                 ;
                    7E              66  9A 00037    MOVZBL  (T), -(SP)                            ; 2254
                            10      AE  9F 0003A    PUSHAB  SRB                                   ; 2252
        00000000G   EF              03  FB 0003D    CALLS   #3, LOCATE_SRB_OUTPUT_ITEM            ;
                    58              50  D0 00044    MOVL    R0, I                                 ;
                    50      01      A6  9A 00047    MOVZBL  1(T), R0                              ; 2260
                    57      04      A6  3C 0004B    MOVZWL  4(T), F                               ;
                    57          6C40    C0 0004F    ADDL2   (AP)[R0], F                           ;
                                    59  D4 00053    CLRL    S                                     ; 2261
                    04      03      A6  E9 00055    BLBC    3(T), 4$                              ; 2267
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                                74      0C    AC  E9 00059          BLBC    ACCESSIBLE, 11$                                 ;
                             11 00      02    A6  8F 0005D 4$:     CASEB   2(T), #0, #17                                   ; 2270
          0067               0049 002E        0024     00062 5$:   .WORD   6$-5$,-                                         ;
          00AC               0092 0088        0071     0006A       7$-5$,-                                                 ;
          0171               0152 012F        00CB     00072       8$-5$,-                                                 ;
          028C               01DE 01D3        01C9     0007A       10$-5$,-                                                ;
                                  03B3        02F3     00082       12$-5$,-                                                ;
                                                                   15$-5$,-                                                ;
                                                                   17$-5$,-                                                ;
                                                                   19$-5$,-                                                ;
                                                                   20$-5$,-                                                ;
                                                                   33$-5$,-                                                ;
                                                                   35$-5$,-                                                ;
                                                                   39$-5$,-                                                ;
                                                                   44$-5$,-                                                ;
                                                                   46$-5$,-                                                ;
                                                                   48$-5$,-                                                ;
                                                                   69$-5$,-                                                ;
                                                                   82$-5$,-                                                ;
                                                                   106$-5$$                                                ;
                                59              67  9A 00086 6$:    MOVZBL  (F), S                                          ; 2279
                         68  01 A7              59  28 00089        MOVC3   S, @1(F), (I)                                   ; 2280
                                                7B  11 0008E        BRB     18$                                             ; 2270
                                59              67  D0 00090 7$:    MOVL    (F), SFM_N                                      ; 2295
                                                76  13 00093        BEQL    18$                                             ; 2296
                                                5A  DD 00095        PUSHL   SFM_N                                           ; 2299
                    00000000G   EF              01  FB 00097        CALLS   #1, READ_RECORD                                 ;
                                59      0110    C0  9A 0009E        MOVZBL  272(SFM), S                                     ; 2300
                         68 0111 C0             59  28 000A3        MOVC3   S, 273(SFM), (I)                                ; 2301
                                                19  11 000A9        BRB     9$                                              ; 2302
                                5A              67  D0 000AB 8$:    MOVL    (F), SMQ_N                                      ; 2318
                                                5B  13 000AE        BEQL    18$                                             ; 2319
                                                5A  DD 000B0        PUSHL   SMQ_N                                           ; 2322
                    00000000G   EF              01  FB 000B2        CALLS   #1, READ_RECORD                                 ;
                                59      00B0    C0  9A 000B9        MOVZBL  176(SMQ), S                                     ; 2323
                         68 00B1 C0             59  28 000BE        MOVC3   S, 177(SMQ), (I)                                ; 2324
                                                5A  DD 000C4 9$:    PUSHL   SMQ_N                                           ; 2325
                                            0158 31 000C6           BRW     42$                                             ;
                                59              67  3C 000C9 10$:   MOVZWL  (F), S                                          ; 2335
                         68  02 B7              59  28 000CC        MOVC3   S, @2(F), (I)                                   ; 2336
                                                38  11 000D1 11$:   BRB     18$                                             ; 2270
                                59      06      A6  3C 000D3 12$:   MOVZWL  6(T), S                                         ; 2346
                                                15  13 000D7 13$:   BEQL    16$                                             ; 2347
                                20      FF A947 91  000D9           CMPB    -1(S)[F], #32                                   ; 2349
                                                06  13 000DE        BEQL    14$                                             ;
                                        FF A947 95  000E0           TSTB    -1(S)[F]                                        ; 2350
                                                08  12 000E4        BNEQ    16$                                             ;
                                                59  D7 000E6 14$:   DECL    S                                               ; 2352
                                                ED  11 000E8        BRB     13$                                             ; 2347
                                59      06      A6  3C 000EA 15$:   MOVZWL  6(T), S                                         ; 2363
                         68                     59  28 000EE 16$:   MOVC3   S, (F), (I)                                    ; 2364
                                                17  11 000F2        BRB     18$                                             ; 2270
                                                58  DD 000F4 17$:   PUSHL   I                                               ; 2373
                                7E      0200    8F  3C 000F6        MOVZWL  #512, -(SP)                                     ;
                                                57  DD 000FB        PUSHL   F                                               ;
                                7E      06      A6  3C 000FD        MOVZWL  6(T), -(SP)                                     ;
                    00000000G   EF              04  FB 00101        CALLS   #4, FETCH_VARIABLE_DATA                         ;
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                                59              67  3C 00108          MOVZWL  (F), S                          ; 2374
                                              0393  31 0010B 18$:      BRW     122$                            ; 2270
                                                68  D4 0010E 19$:      CLRL    (I)                             ; 2390
                                50        14    AC  D0 00110          MOVL    SMQ, R0                         ; 2391
                                77        0C    A0  E8 00114          BLBS    12(R0), 32$                     ;
                                52        1C    AC  D0 00118          MOVL    SJH, R2                         ; 2393
                                                52  DD 0011C          PUSHL   R2                              ;
                    00000000G   EF              01  FB 0011E          CALLS   #1, SYMBIONT_COMPLETED_BLOCKS   ;
                                68      00D8  D240  9E 00125          MOVAB   @216(R2)[R0], (I)               ;
                                                62  11 0012B          BRB     32$                             ; 2394
                                                68  D4 0012D 20$:      CLRL    (I)                             ; 2412
                                50        24    AC  D0 0012F          MOVL    SQR, R0                         ; 2413
                                50              0C  C0 00133          ADDL2   #12, R0                         ;
                    03          60              03  E1 00136          BBC     #3, (R0), 21$                   ;
                                68              01  88 0013A          BISB2   #1, (I)                         ; 2414
                    03          60              04  E1 0013D 21$:      BBC     #4, (R0), 22$                   ; 2415
                                68              02  88 00141          BISB2   #2, (I)                         ; 2416
                                03              60  E9 00144 22$:      BLBC    (R0), 23$                       ; 2417
                                68              04  88 00147          BISB2   #4, (I)                         ; 2418
                    03          60              02  E1 0014A 23$:      BBC     #2, (R0), 24$                   ; 2419
                                68              08  88 0014E          BISB2   #8, (I)                         ; 2420
                    03          60              05  E1 00151 24$:      BBC     #5, (R0), 25$                   ; 2421
                                68              10  88 00155          BISB2   #16, (I)                        ; 2422
                    03          60              06  E1 00158 25$:      BBC     #6, (R0), 26$                   ; 2423
                                68              20  88 0015C          BISB2   #32, (I)                        ; 2424
                                                60  95 0015F 26$:      TSTB    (R0)                            ; 2425
                                                04  18 00161          BGEQ    27$                             ;
                                68        40    8F  88 00163          BISB2   #64, (I)                        ; 2426
                                04        01    A0  E9 00167 27$:      BLBC    1(R0), 28$                      ; 2427
                                68        80    8F  88 0016B          BISB2   #128, (I)                       ; 2428
                    04          60              09  E1 0016F 28$:      BBC     #9, (R0), 29$                   ; 2429
                          01    A8              01  88 00173          BISB2   #1, 1(I)                        ; 2430
                    04          60              0A  E1 00177 29$:      BBC     #10, (R0), 30$                  ; 2431
                          01    A8              02  88 0017B          BISB2   #2, 1(I)                        ; 2432
                    04          60              0B  E1 0017F 30$:      BBC     #11, (R0), 31$                  ; 2433
                          01    A8              08  88 00183          BISB2   #8, 1(I)                        ; 2434
                    46          60              0C  E1 00187 31$:      BBC     #12, (R0), 38$                  ; 2435
                          01    A8              04  88 0018B          BISB2   #4, 1(I)                        ; 2436
                                                40  11 0018F 32$:      BRB     38$                             ; 2437
                                                68  D4 00191 33$:      CLRL    (I)                             ; 2455
                                50        1C    AC  D0 00193          MOVL    SJH, R0                         ; 2456
                          20    AC      00EC  C0  D1 00197          CMPL    236(R0), SQR_N                  ;
                                                03  12 0019D          BNEQ    34$                             ;
                                68              01  88 0019F          BISB2   #1, (I)                         ; 2457
                    2A    10    A0              03  E1 001A2 34$:      BBC     #3, 16(R0), 38$                 ; 2458
                          20    AC      00F0  C0  D1 001A7          CMPL    240(R0), SQR_N                  ; 2459
                                                22  12 001AD          BNEQ    38$                             ;
                                68              02  88 001AF          BISB2   #2, (I)                         ; 2460
                                                7F  11 001B2          BRB     45$                             ; 2461
                                                68  D4 001B4 35$:      CLRL    (I)                             ; 2475
                                50        14    AC  D0 001B6          MOVL    SFM, R0                         ; 2476
                                03        0C    A0  E9 001BA          BLBC    12(R0), 36$                     ;
                                68              01  88 001BE          BISB2   #1, (I)                         ; 2477
                    03          0C    A0        01  E1 001C1 36$:      BBC     #1, 12(R0), 37$                 ; 2478
                                68              02  88 001C6          BISB2   #2, (I)                         ; 2479
                    6F          0C    A0        02  E1 001C9 37$:      BBC     #2, 12(R0), 47$                 ; 2480
                                68              04  88 001CE          BISB2   #4, (I)                         ; 2481
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                                 6A  11 001D1 38$:    BRB     47$                                 ; 2482
                          04     AE  67 001D3 39$:    MOVL    (F), AUX_N                          ; 2497
                                 4F  13 001D7         BEQL    43$                                 ; 2498
                              04 AE  DD 001D9         PUSHL   AUX_N                               ; 2501
                   00000000G  EF     01 FB 001DC     CALLS   #1, READ_RECORD                     ;
                              5B     50 D0 001E3     MOVL    R0, AUX                             ;
                                     57 D4 001E6     CLRL    J                                   ; 2502
                                     2D 11 001E8     BRB     41$                                 ;
                              6E  0C AB47 D0 001EA 40$:    MOVL    12(AUX)[J], SMQ_N           ; 2509
                                     6E DD 001EF     PUSHL   SMQ_N                               ; 2510
                   00000000G  EF     01 FB 001F1     CALLS   #1, READ_RECORD                     ;
                              5A 00B0 C0 9A 001F8     MOVZBL  176(SMQ), LS                        ; 2511
                          68  00B1 C0  5A 28 001FD    MOVC3   LS, 177(SMQ), (I)                   ; 2512
                              58     53 D0 00203     MOVL    R3, I                               ;
                              88     2C 90 00206     MOVB    #44, (I)+                           ; 2513
                              59  01 AA49 9E 00209     MOVAB   1(LS)[S], S                         ; 2514
                                     6E DD 0020E     PUSHL   SMQ_N                               ; 2515
                   00000000G  EF     01 FB 00210     CALLS   #1, RELEASE_RECORD                  ;
                          CE  57  0C AB F3 00217 41$:    AOBLEQ  12(AUX), J, 40$                     ; 2502
                                     59 D7 0021C     DECL    S                                   ; 2517
                              04     AE DD 0021E     PUSHL   AUX_N                               ; 2518
                   00000000G  EF     01 FB 00221 42$:    CALLS   #1, RELEASE_RECORD              ;
                                 0276 31 00228 43$:    BRW     122$                                ; 2270
                              50  04 AC D0 0022B 44$:    MOVL    GQC, R0                             ; 2528
                              68  34 A0 D0 0022F         MOVL    52(R0), (I)                         ;
                                     08 11 00233 45$:    BRB     47$                                 ; 2529
                              50  04 AC D0 00235 46$:    MOVL    GQC, R0                             ; 2538
                              68  38 A0 D0 00239         MOVL    56(R0), (I)                         ;
                                 025E 31 0023D 47$:    BRW     121$                                ; 2539
                                     68 D4 00240 48$:    CLRL    (I)                                 ; 2555
                              50  1C AC D0 00242         MOVL    SJH, R0                             ; 2556
                              50     0C C0 00246         ADDL2   #12, R0                             ;
                              03     60 E9 00249         BLBC    (R0), 49$                           ;
                              68     01 88 0024C         BISB2   #1, (I)                             ; 2557
                          03  60     01 E1 0024F 49$:    BBC     #1, (R0), 50$                       ; 2558
                              68     02 88 00253         BISB2   #2, (I)                             ; 2559
                          03  60     03 E1 00256 50$:    BBC     #3, (R0), 51$                       ; 2560
                              68     04 88 0025A         BISB2   #4, (I)                             ; 2561
                          03  60     02 E1 0025D 51$:    BBC     #2, (R0), 52$                       ; 2562
                              68     08 88 00261         BISB2   #8, (I)                             ; 2563
                          03  60     04 E1 00264 52$:    BBC     #4, (R0), 53$                       ; 2564
                              68     10 88 00268         BISB2   #16, (I)                            ; 2565
                          03  60     06 E1 0026B 53$:    BBC     #6, (R0), 54$                       ; 2566
                              68     20 88 0026F         BISB2   #32, (I)                            ; 2567
                          04  60     05 E1 00272 54$:    BBC     #5, (R0), 55$                       ; 2568
                              68  40 8F 88 00276         BISB2   #64, (I)                            ; 2569
                                     60 95 0027A 55$:    TSTB    (R0)                                ; 2570
                                     04 18 0027C         BGEQ    56$                                 ;
                              68  80 8F 88 0027E         BISB2   #128, (I)                           ; 2571
                          04  60     09 E1 00282 56$:    BBC     #9, (R0), 57$                       ; 2572
                       01     A8     01 88 00286         BISB2   #1, 1(I)                            ; 2573
                              04  01 A0 E9 0028A 57$:    BLBC    1(R0), 58$                          ; 2574
                       01     A8     02 88 0028E         BISB2   #2, 1(I)                            ; 2575
                          04  60     0A E1 00292 58$:    BBC     #10, (R0), 59$                      ; 2576
                       01     A8     04 88 00296         BISB2   #4, 1(I)                            ; 2577
                          04  60     0B E1 0029A 59$:    BBC     #11, (R0), 60$                      ; 2578
                       01     A8     08 88 0029E         BISB2   #8, 1(I)                            ; 2579
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                04   60              0C  E1 002A2 60$:   BBC     #12, (R0), 61$          ; 2580
                     01   A8         10  88 002A6       BISB2   #16, (I)                ; 2581
                04   60              0D  E1 002AA 61$:   BBC     #13, (R0), 62$          ; 2582
                     01   A8         20  88 002AE       BISB2   #32, 1(I)               ; 2583
                05   60              0E  E1 002B2 62$:   BBC     #14, (R0), 63$          ; 2584
                     01   A8    40   8F  88 002B6       BISB2   #64, 1(I)               ; 2585
                                    60  B5 002BB 63$:   TSTW    (R0)                    ; 2586
                                    04  18 002BD       BGEQ    64$                     ;
                     02   A8         08  88 002BF       BISB2   #8, 2(I)                ; 2587
                          04   02    A0  E9 002C3 64$:   BLBC    2(R0), 65$              ; 2588
                     02   A8         10  88 002C7       BISB2   #16, 2(I)               ; 2589
                05   60              11  E1 002CB 65$:   BBC     #17, (R0), 66$          ; 2590
                     01   A8    80   8F  88 002CF       BISB2   #128, 1(I)              ; 2591
                04   60              12  E1 002D4 66$:   BBC     #18, (R0), 67$          ; 2592
                     02   A8         01  88 002D8       BISB2   #1, 2(I)                ; 2593
                04   60              13  E1 002DC 67$:   BBC     #19, (R0), 68$          ; 2594
                     02   A8         02  88 002E0       BISB2   #2, 2(I)                ; 2595
                6A   60              14  E1 002E4 68$:   BBC     #20, (R0), 81$          ; 2596
                     02   A8         04  88 002E8       BISB2   #4, 2(I)                ; 2597
                                    64  11 002EC       BRB     81$                     ; 2598
                                    68  D4 002EE 69$:   CLRL    (I)                     ; 2614
                          50   1C    AC  D0 002F0       MOVL    SJH, R0                 ; 2615
                          50         10  C0 002F4       ADDL2   #16, R0                 ;
                          04         60  E8 002F7       BLBS    (R0), 70$               ;
                03        60         01  E1 002FA       BBC     #1, (R0), 71$           ;
                          68         01  88 002FE 70$:   BISB2   #1, (I)                ; 2616
                07        60         03  E1 00301 71$:   BBC     #3, (R0), 72$           ; 2617
                03        60         04  E0 00305       BBS     #4, (R0), 72$           ;
                          68         02  88 00309       BISB2   #2, (I)                 ; 2618
                03        60         05  E1 0030C 72$:   BBC     #5, (R0), 73$           ; 2619
                          68         04  88 00310       BISB2   #4, (I)                 ; 2620
                          03   0C    AC  E8 00313 73$:   BLBS    ACCESSIBLE, 74$         ; 2621
                          68         08  88 00317       BISB2   #8, (I)                 ; 2622
                                    60  95 0031A 74$:   TSTB    (R0)                    ; 2623
                                    03  18 0031C       BGEQ    75$                     ;
                          68         10  88 0031E       BISB2   #16, (I)                ; 2624
                          03   01    A0  E9 00321 75$:   BLBC    1(R0), 76$              ; 2625
                          68         20  88 00325       BISB2   #32, (I)                ; 2626
                04        60         0A  E1 00328 76$:   BBC     #10, (R0), 77$          ; 2627
                          68    40   8F  88 0032C       BISB2   #64, (I)                ; 2628
                04        60         0B  E1 00330 77$:   BBC     #11, (R0), 78$          ; 2629
                          68    80   8F  88 00334       BISB2   #128, (I)               ; 2630
                04        60         0C  E0 00338 78$:   BBS     #12, (R0), 79$          ; 2631
                04        60         04  E1 0033C       BBC     #4, (R0), 80$           ;
                     01   A8         01  88 00340 79$:   BISB2   #1, 1(I)               ; 2632
                          50   04    AC  D0 00344 80$:   MOVL    GQC, R0                 ; 2633
                          03   28    A0  D1 00348       CMPL    40(R0), #3              ;
                                    04  12 0034C       BNEQ    81$                     ;
                     01   A8         02  88 0034E       BISB2   #2, 1(I)                ; 2634
                                  0149  31 00352 81$:   BRW     121$                    ; 2635
                                    68  D4 00355 82$:   CLRL    (I)                     ; 2649
                          50   14    AC  D0 00357       MOVL    SMQ, R0                 ; 2650
                          50         0C  C0 0035B       ADDL2   #12, R0                 ;
                          03         60  E9 0035E       BLBC    (R0), 83$               ;
                          68         01  88 00361       BISB2   #1, (I)                 ; 2651
                03        60         02  E1 00364 83$:   BBC     #2, (R0), 84$           ; 2652
                          68         02  88 00368       BISB2   #2, (I)                 ; 2653
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                03          60          03  E1 00036B 84$:   BBC     #3, (R0), 85$                   ; 2654
                            68          04  88 00036F         BISB2   #4, (I)                         ; 2655
                03          60          04  E1 00372 85$:    BBC     #4, (R0), 86$                   ; 2656
                            68          08  88 00376          BISB2   #8, (I)                         ; 2657
                03          60          05  E1 00379 86$:    BBC     #5, (R0), 87$                   ; 2658
                            68          10  88 0037D          BISB2   #16, (I)                        ; 2659
                03          60          06  E1 00380 87$:    BBC     #6, (R0), 88$                   ; 2660
                            68          20  88 00384          BISB2   #32, (I)                        ; 2661
                                        60  95 00387 88$:    TSTB    (R0)                            ; 2662
                                        04  18 00389         BGEQ    89$                             ;
                            68      40  8F  88 0038B          BISB2   #64, (I)                        ; 2663
                            04      01  A0  E9 0038F 89$:    BLBC    1(R0), 90$                      ; 2664
                            68      80  8F  88 00393          BISB2   #128, (I)                       ; 2665
                04          60          09  E1 00397 90$:    BBC     #9, (R0), 91$                   ; 2666
                        01  A8          01  88 0039B          BISB2   #1, 1(I)                        ; 2667
                04          60          0A  E1 0039F 91$:    BBC     #10, (R0), 92$                  ; 2668
                        01  A8          02  88 003A3          BISB2   #2, 1(I)                        ; 2669
                04          60          0B  E1 003A7 92$:    BBC     #11, (R0), 93$                  ; 2670
                        01  A8          04  88 003AB          BISB2   #4, 1(I)                        ; 2671
                04          60          0C  E1 003AF 93$:    BBC     #12, (R0), 94$                  ; 2672
                        01  A8          08  88 003B3          BISB2   #8, 1(I)                        ; 2673
                04          60          0E  E1 003B7 94$:    BBC     #14, (R0), 95$                  ; 2674
                        01  A8          20  88 003BB          BISB2   #32, 1(I)                       ; 2675
                04          60          0D  E1 003BF 95$:    BBC     #13, (R0), 96$                  ; 2676
                        01  A8          10  88 003C3          BISB2   #16, 1(I)                       ; 2677
                                        60  B5 003C7 96$:    TSTW    (R0)                            ; 2678
                                        05  18 003C9         BGEQ    97$                             ;
                        01  A8      40  8F  88 003CB          BISB2   #64, 1(I)                       ; 2679
            05          60          11  E1 003D0 97$:    BBC     #17, (R0), 98$                  ; 2680
                        02  A8      40  8F  88 003D4          BISB2   #64, 2(I)                       ; 2681
            05          60          12  E1 003D9 98$:    BBC     #18, (R0), 99$                  ; 2682
                        01  A8      80  8F  88 003DD          BISB2   #128, 1(I)                      ; 2683
            04          60          13  E1 003E2 99$:    BBC     #19, (R0), 100$                 ; 2684
                        02  A8          01  88 003E6          BISB2   #1, 2(I)                        ; 2685
            04          60          15  E1 003EA 100$:   BBC     #21, (R0), 101$                 ; 2686
                        02  A8          02  88 003EE          BISB2   #2, 2(I)                        ; 2687
            04          60          16  E1 003F2 101$:   BBC     #22, (R0), 102$                 ; 2688
                        02  A8          04  88 003F6          BISB2   #4, 2(I)                        ; 2689
            04          60          17  E1 003FA 102$:   BBC     #23, (R0), 103$                 ; 2690
                        02  A8          08  88 003FE          BISB2   #8, 2(I)                        ; 2691
                            04      03  A0  E9 00402 103$:   BLBC    3(R0), 104$                     ; 2692
                        02  A8          10  88 00406          BISB2   #16, 2(I)                       ; 2693
            04          60          19  E1 0040A 104$:   BBC     #25, (R0), 105$                 ; 2694
                        02  A8          20  88 0040E          BISB2   #32, 2(I)                       ; 2695
                                0089    31  00412 105$:   BRW     121$                            ; 2696
                                    68  D4  00415 106$:   CLRL    (I)                             ; 2710
                            50      14  AC  D0 00417          MOVL    SMQ, R0                         ; 2711
                            51      10  A0  9E 0041B          MOVAB   16(R0), R1                      ;
                            03          61  E9 0041F          BLBC    (R1), 107$                      ;
                            68          01  88 00422          BISB2   #1, (I)                         ; 2712
                                0115    C0  95 00425 107$:   TSTB    277(R0)                         ; 2713
                                        03  12 00429         BNEQ    108$                            ;
                            68          02  88 0042B          BISB2   #2, (I)                         ; 2714
                            03      0E  A0  E9 0042E 108$:   BLBC    14(R0), 109$                    ; 2715
                            68          04  88 00432          BISB2   #4, (I)                         ; 2716
            03              61          01  E1 00435 109$:   BBC     #1, (R1), 110$                  ; 2717
                            68          08  88 00439          BISB2   #8, (I)                         ; 2718
```

```
                0A          61          02  E1 0043C 110$:  BBC     #2, (R1), 111$                  ; 2719
                07          61          E8 00440        BLBS    (R1), 111$                      ;
                03          61          06  E0 00443        BBS     #6, (R1), 111$              ;
                            68          10  88 00447        BISB2   #16, (I)                    ; 2720
                03          61          03  E1 0044A 111$:  BBC     #3, (R1), 112$              ; 2721
                            68          20  88 0044E        BISB2   #32, (I)                    ; 2722
                04          61          04  E1 00451 112$:  BBC     #4, (R1), 113$              ; 2723
                            68      40  8F  88 00455        BISB2   #64, (I)                    ; 2724
                04          61          05  E1 00459 113$:  BBC     #5, (R1), 114$              ; 2725
                            68      80  8F  88 0045D        BISB2   #128, (I)                   ; 2726
                07          61          06  E1 00461 114$:  BBC     #6, (R1), 115$              ; 2727
                            04          61  E8 00465        BLBS    (R1), 115$                  ;
                        01  A8          01  88 00468        BISB2   #1, 1(I)                    ; 2728
                04      0E  A0          04  E1 0046C 115$:  BBC     #4, 14(R0), 116$            ; 2729
                        01  A8          02  88 00471        BISB2   #2, 1(I)                    ; 2730
                                        61  95 00475 116$:  TSTB    (R1)                        ; 2731
                                        04  18 00477        BGEQ    117$                        ;
                        01  A8          04  88 00479        BISB2   #4, 1(I)                    ; 2732
                            04      01  A1  E9 0047D 117$:  BLBC    1(R1), 118$                 ; 2733
                        01  A8          08  88 00481        BISB2   #8, 1(I)                    ; 2734
                04          61          09  E1 00485 118$:  BBC     #9, (R1), 119$              ; 2735
                        01  A8          10  88 00489        BISB2   #16, 1(I)                   ; 2736
                04          61          0A  E1 0048D 119$:  BBC     #10, (R1), 120$             ; 2737
                        01  A8          20  88 00491        BISB2   #32, 1(I)                   ; 2738
                05          61          0B  E1 00495 120$:  BBC     #11, (R1), 121$             ; 2739
                        01  A8      40  8F  88 00499        BISB2   #64, 1(I)                   ; 2740
                            59          04  D0 0049E 121$:  MOVL    #4, S                       ; 2741
                                        59  DD 004A1 122$:  PUSHL   S                           ; 2751
                                    0C  AE  9F 004A3        PUSHAB  SRB                         ;
        00000000G   EF                  02  FB 004A6        CALLS   #2, COMPLETE_SRB_OUTPUT_ITEM ;
                            56          08  C0 004AD 123$:  ADDL2   #8, T                       ; 2757
                                FB62    31  004B0        BRW     1$                          ; 2239
            03FC    8F  00000000'       EF  B3 004B3 124$:  BITW    ITEM_PRESENT+7, #1020       ; 2763
                                        0B  13 004BC        BEQL    125$                        ;
                                    1C  AC  DD 004BE        PUSHL   REC_2                       ; 2765
                                    0C  AE  9F 004C1        PUSHAB  SRB                         ;
            FAC7    CF                  02  FB 004C4        CALLS   #2, RETURN_PARAMETERS       ;
                            50      04  AC  D0 004C9 125$:  MOVL    GQC, R0                     ; 2770
                                    34  A0  7C 004CD        CLRQ    52(R0)                      ;
                                00040001    8F  DD 004D0        PUSHL   #262145                 ; 2777
                                    0C  AE  9F 004D6        PUSHAB  SRB                         ;
        00000000G   EF                  02  FB 004D9        CALLS   #2, SEND_SERVICE_RESPONSE_MESSAGE ;
                                        50  D4 004E0        CLRL    R0                          ; 2779
                                            04 004E2        RET                                 ;

; Routine Size:  1251 bytes,    Routine Base:  CODE + 057D
```

```
;1752     2780  1 ROUTINE QUI_CANCEL_OPERATION(GQC)=
;1753     2781  1
;1754     2782  1 !++
;1755     2783  1 !
;1756     2784  1 ! FUNCTIONAL DESCRIPTION:
;1757     2785  1 !       This routine processes the QUI$_CANCEL_OPERATION request.
;1758     2786  1 !
;1759     2787  1 ! INPUT PARAMETERS:
;1760     2788  1 !       GQC             - Pointer to $GETQUI context block.
;1761     2789  1 !
;1762     2790  1 ! IMPLICIT INPUTS:
;1763     2791  1 !       MBX             - Pointer to buffered mailbox message.
;1764     2792  1 !
;1765     2793  1 ! OUTPUT PARAMETERS:
;1766     2794  1 !       NONE
;1767     2795  1 !
;1768     2796  1 ! IMPLICIT OUTPUTS:
;1769     2797  1 !       NONE
;1770     2798  1 !
;1771     2799  1 ! ROUTINE VALUE:
;1772     2800  1 !       Completion status to be returned to requestor.
;1773     2801  1 !
;1774     2802  1 ! SIDE EFFECTS:
;1775     2803  1 !       NONE
;1776     2804  1 !
;1777     2805  1 !--
;1778     2806  1
;1779     2807  2 BEGIN
;1780     2808  2 MAP
;1781     2809  2         GQC:            REF BBLOCK;     ! Pointer to $GETQUI context block
;1782     2810  2
;1783     2811  2
;1784     2812  2 ! Cancel the pending wildcard operations, if any.
;1785     2813  2 !
;1786     2814  2 GQC[GQC_WILDCARDS] = 0;
;1787     2815  2
;1788     2816  2
;1789     2817  2 SS$_NORMAL
;1790     2818  1 END;


                                0000 00000 QUI_CANCEL_OPERATION:
                                           .WORD   Save nothing                    ;2780
                        50      04   AC  D0 00002 MOVL    GQC, R0                 ;2814
                    08  A0          0F  8A 00006 BICB2   #15, 8(R0)              ;
                        50          01  D0 0000A MOVL    #1, R0                  ;2818
                                    04  0000D   RET                              ;

; Routine Size:  14 bytes,    Routine Base:  CODE + 0A60
```

```
;  1792     2819  1 ROUTINE QUI_DISPLAY_CHARACTERISTIC(GQC)=
;  1793     2820  1
;  1794     2821  1 !++
;  1795     2822  1 !
;  1796     2823  1 ! FUNCTIONAL DESCRIPTION:
;  1797     2824  1 !       This routine processes the QUI$_DISPLAY_CHARACTERISTIC request.
;  1798     2825  1 !
;  1799     2826  1 ! INPUT PARAMETERS:
;  1800     2827  1 !       GQC             - Pointer to $GETQUI context block.
;  1801     2828  1 !
;  1802     2829  1 ! IMPLICIT INPUTS:
;  1803     2830  1 !       MBX             - Pointer to buffered mailbox message.
;  1804     2831  1 !
;  1805     2832  1 ! OUTPUT PARAMETERS:
;  1806     2833  1 !       NONE
;  1807     2834  1 !
;  1808     2835  1 ! IMPLICIT OUTPUTS:
;  1809     2836  1 !       NONE
;  1810     2837  1 !
;  1811     2838  1 ! ROUTINE VALUE:
;  1812     2839  1 !       Completion status to be returned to requestor.
;  1813     2840  1 !
;  1814     2841  1 ! SIDE EFFECTS:
;  1815     2842  1 !       NONE
;  1816     2843  1 !
;  1817     2844  1 !--
;  1818     2845  1
;  1819     2846  2 BEGIN
;  1820     2847  2 MAP
;  1821     2848  2         GQC:            REF BBLOCK;     ! Pointer to $GETQUI context block
;  1822     2849  2 LOCAL
;  1823     2850  2         SCE:            REF BBLOCK;     ! Pointer to SCX entry
;  1824     2851  2 LITERAL
;  1825     2852  2         K_SCE=          K_REC_1;
;  1826     2853  2 LABEL
;  1827     2854  2         FIND_SELECTED;
;  1828     2855  2
;  1829     2856  2
;  1830     2857  2 ! Ensure that a search name was specified.
;  1831     2858  2 !
;  1832     2859  2 IF NOT .ITEM_PRESENT[QUI$_SEARCH_NAME]
;  1833     2860  2 THEN
;  1834     2861  2     RETURN JBC$_MISREQPAR;
;  1835     2862  2
;  1836     2863  2
;  1837     2864  2 ! Set the characteristic wildcard bit.
;  1838     2865  2 !
;  1839     2866  2 GQC[GQC_SCX_WILD] = WILD_SEARCH_NAME();
;  1840     2867  2
;  1841     2868  2
;  1842     2869  2 ! If this is the first call, advance to the first characteristic record.
;  1843     2870  2 !
;  1844     2871  2 IF .GQC[GQC_SCX_N] EQL SQH$K_RECNO
;  1845     2872  2 THEN
;  1846     2873  3     BEGIN
;  1847     2874  3     LOCAL
;  1848     2875  3         SQH:            REF BBLOCK;     ! Pointer to SQH
```

```
;  1849     2876  3
;  1850     2877  3      SQH = READ_RECORD(SQH$K_RECNO);
;  1851     2878  3      GQC[GQC_SCX_N] = .SQH[SQH$L_CHARACTERISTIC_LIST];
;  1852     2879  3      GQC[GQC_SCE_N] = $BYTEOFFSET(SYM$T_DATA) - SCX$S_SCX;
;  1853     2880  3      RELEASE_RECORD(SQH$K_RECNO);
;  1854     2881  2      END;
;  1855     2882  2
;  1856     2883  2
;  1857     2884  3 FIND_SELECTED:  BEGIN
;  1858     2885  3
;  1859     2886  3
;  1860     2887  3 ! Loop over characteristic index records.
;  1861     2888  3 !
;  1862     2889  3 WHILE TRUE DO
;  1863     2890  4     BEGIN
;  1864     2891  4     LOCAL
;  1865     2892  4         SCX_N,                  ! Record number of SCX
;  1866     2893  4         SCX:    REF BBLOCK;     ! Pointer to SCX
;  1867     2894  4
;  1868     2895  4
;  1869     2896  4     ! No more records -- return failure.
;  1870     2897  4     !
;  1871     2898  4     IF .GQC[GQC_SCX_N] EQL 0
;  1872     2899  4     THEN
;  1873     2900  5         BEGIN
;  1874     2901  5         GQC[GQC_SCX_WILD] = FALSE;
;  1875     2902  5         RETURN JBC$_NOSUCHCHAR;
;  1876     2903  4         END;
;  1877     2904  4
;  1878     2905  4
;  1879     2906  4     ! Read the characteristic index record.
;  1880     2907  4     !
;  1881     2908  4     SCX = READ_RECORD(SCX_N = .GQC[GQC_SCX_N]);
;  1882     2909  4
;  1883     2910  4
;  1884     2911  4     ! Loop over characteristic entries.
;  1885     2912  4     !
;  1886     2913  4     WHILE TRUE DO
;  1887     2914  5         BEGIN
;  1888     2915  5
;  1889     2916  5         ! Advance to next entry, and ensure that it is valid.
;  1890     2917  5         !
;  1891     2918  5         IF TESTBITCC(GQC[GQC_SCX_NO_ADV])
;  1892     2919  5             THEN GQC[GQC_SCE_N] = .GQC[GQC_SCE_N] + SCX$S_SCX;
;  1893     2920  5         IF .GQC[GQC_SCE_N] GEQU $BYTEOFFSET(SYM$T_DATA) + SCX$S_SCX * SCX$K_ENTRIES
;  1894     2921  5             THEN EXITLOOP;
;  1895     2922  5         SCE = .SCX + .GQC[GQC_SCE_N];
;  1896     2923  5         IF CH$RCHAR(SCE[SCX$T_NAME]) EQL 0 THEN EXITLOOP;
;  1897     2924  5
;  1898     2925  5
;  1899     2926  5         ! Match this entry with the selector.
;  1900     2927  5         !
;  1901     2928  5         IF FMG$MATCH_NAME(
;  1902     2929  5             CH$RCHAR(SCE[SCX$T_NAME]),
;  1903     2930  5             SCE[SCX$T_NAME] + 1,
;  1904     2931  5             .VALUE_SEARCH_NAME[SDSC_W_LENGTH],
;  1905     2932  5             .VALUE_SEARCH_NAME[SDSC_A_POINTER])
```

```
;  1906          2933  5          THEN
;  1907          2934  5              LEAVE FIND_SELECTED;
;  1908          2935  4          END;
;  1909          2936  4
;  1910          2937  4
;  1911          2938  4      ! Advance to next characteristic index record.
;  1912          2939  4      !
;  1913          2940  4      GQC[GQC_SCX_N] = .SCX[SYM$L_LINK];
;  1914          2941  4      GQC[GQC_SCE_N] = $BYTEOFFSET(SYM$T_DATA) - SCX$S_SCX;
;  1915          2942  4      RELEASE_RECORD(.SCX_N);
;  1916          2943  3      END;
;  1917          2944  3
;  1918          2945  3
;  1919          2946  2  END; ! of block FIND_SELECTED
;  1920          2947  2
;  1921          2948  2
;  1922          2949  2  ! Return information about the selected characteristic.
;  1923          2950  2  !
;  1924          2951  2  RETURN_RESULT(
;  1925          2952  2      .GQC,
;  1926        P 2953  2      GENERATE_TABLE(
;  1927        P 2954  2          QUI$_CHARACTERISTIC_NAME,
;  1928        P 2955  2                  K_SCE,  K_COPY_ASCIC,          FALSE,  $BYTEOFFSET(SCX$T_NAME),          0,
;  1929        P 2956  2          QUI$_CHARACTERISTIC_NUMBER,
;  1930          2957  2                  K_SCE,  K_COPY_VALUE,          FALSE,  $BYTEOFFSET(SCX$B_NUMBER),        1),
;  1931          2958  2      TRUE,
;  1932          2959  2      0, .SCE)
;  1933          2960  1  END;


                                                00A6E              .BLKB   2
                                          00    00  05  05   00A70 P.AAA:  .BYTE   5, 5, 0, 0                          ;
                                                0000  0000   00A74         .WORD   0, 0                               ;
                                          00    05  05  06   00A78         .BYTE   6, 5, 5, 0                         ;
                                                0001  0020   00A7C         .WORD   32, 1                              ;
                                                      00     00A80         .BYTE   0                                  ;


                                                      OFFC 00000 QUI_DISPLAY_CHARACTERISTIC:
                                                                 .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11          ; 2819
                                    08 00000000'  EF                 05  E0 00002         BBS     #5, ITEM_PRESENT+9, 1$     ; 2859
                                                  50 00048108        8F  D0 0000A         MOVL    #295176, R0                ; 2861
                                                                     04  00011         RET                                ;
                                                  56       04        AC  D0 00012 1$:     MOVL    GQC, R6                    ; 2866
                                          FA4D    CF               00  FB 00016         CALLS   #0, WILD_SEARCH_NAME       ;
                                    01            00               50  F0 0001B         INSV    R0, #0, #1, 8(R6)          ;
                                                  59       0C      A6  9E 00021         MOVAB   12(R6), R9                 ; 2871
                                                  01               69  D1 00025         CMPL    (R9), #1                   ;
                                                                   1A  12 00028         BNEQ    2$                         ;
                                                                   01  DD 0002A         PUSHL   #1                         ; 2877
                                       00000000G  EF               01  FB 0002C         CALLS   #1, READ_RECORD            ;
                                                  69       10      A0  D0 00033         MOVL    16(SQH), (R9)              ; 2878
                                            10    A6               15  CE 00037         MNEGL   #21, 16(R6)                ; 2879
                                                                   01  DD 0003B         PUSHL   #1                         ; 2880
                                       00000000G  EF               01  FB 0003D         CALLS   #1, RELEASE_RECORD         ;
```

```
                        58        10   A6  9E 00044 2$:    MOVAB   16(R6), R8                      ; 2920
                        58        10   A6  9E 00048        MOVAB   16(R6), R8                      ; 2941
                                       69  D5 0004C 3$:    TSTL    (R9)                            ; 2898
                                       cc  12 0004E        BNEQ    4$                              ;
                              08       A6  01 8A 00050     BICB2   #1, 8(R6)                       ; 2901
                                 50 00048150   8F  D0 00054     MOVL    #295248, R0                 ; 2902
                                       04  0005B           RET                                     ;
                                       5A  69  D0 0005C 4$:    MOVL    (R9), SCX_N                 ; 2908
                                           5A  DD 0005F        PUSHL   SCX_N                       ;
                        00000000G      EF  01  FB 00061        CALLS   #1, READ_RECORD             ;
                                       5B  50  D0 00068        MOVL    R0, SCX                     ;
                    04        08       A6  04  E4 0006B 5$:    BBSC    #4, 8(R6), 6$               ; 2918
                              10       A6  21  C0 00070        ADDL2   #33, 16(R6)                 ; 2919
                        000001FB       8F  68  D1 00074 6$:    CMPL    (R8), #507                  ; 2920
                                           28  1E 00078        BGEQU   7$                          ;
                    57                 5B  68  C1 0007D        ADDL3   (R8), SCX, SCE              ; 2922
                                           67  95 00081        TSTB    (SCE)                       ; 2923
                                           20  13 00083        BEQL    7$                          ;
                                   53        01   A7  9E 00085        MOVAB   1(SCE), R3          ; 2930
                                   55 00000000'   EF  D0 00089        MOVL    VALUE_SEARCH_NAME+2, R5 ; 2929
                                   54 00000000'   EF  3C 00090        MOVZWL  VALUE_SEARCH_NAME, R4   ;
                                   52             67  9A 00097        MOVZBL  (SCE), R2           ;
                                      00000000G   00  16 0009A        JSB     FMG$MATCH_NAME      ;
                                   C8             50  E9 000A0        BLBC    R0, 5$              ;
                                                  11  11 000A3        BRB     8$                  ; 2934
                                   69             6B  D0 000A5 7$:    MOVL    (SCX), (R9)         ; 2940
                                   68             15  CE 000A8        MNEGL   #21, (R8)           ; 2941
                                                  5A  DD 000AB        PUSHL   SCX_N               ; 2942
                        00000000G      EF  01  FB 000AD        CALLS   #1, RELEASE_RECORD          ;
                                                  96  11 000B4        BRB     3$                  ; 2889
                                                  57  DD 000B6 8$:    PUSHL   SCE                 ; 2959
                                   7E             01  7D 000B8        MOVQ    #1, -(SP)           ; 2951
                                          FF30    CF  9F 000BB        PUSHAB  P.AAA               ; 2957
                                                  56  DD 000BF        PUSHL   R6                  ; 2952
                                FA36      CF  05  FB 000C1        CALLS   #5, RETURN_RESULT           ;
                                                  04  000C6        RET                             ; 2960

; Routine Size:  199 bytes,    Routine Base:  CODE + 0A81
```

```
;1935     2961  1 ROUTINE QUI_DISPLAY_FILE(GQC)=
;1936     2962  1
;1937     2963  1 !++
;1938     2964  1 !
;1939     2965  1 ! FUNCTIONAL DESCRIPTION:
;1940     2966  1 !       This routine processes the QUI$_DISPLAY_FILE request.
;1941     2967  1 !
;1942     2968  1 ! INPUT PARAMETERS:
;1943     2969  1 !       GQC             - Pointer to $GETQUI context block.
;1944     2970  1 !
;1945     2971  1 ! IMPLICIT INPUTS:
;1946     2972  1 !       MBX             - Pointer to buffered mailbox message.
;1947     2973  1 !
;1948     2974  1 ! OUTPUT PARAMETERS:
;1949     2975  1 !       NONE
;1950     2976  1 !
;1951     2977  1 ! IMPLICIT OUTPUTS:
;1952     2978  1 !       NONE
;1953     2979  1 !
;1954     2980  1 ! ROUTINE VALUE:
;1955     2981  1 !       Completion status to be returned to requestor.
;1956     2982  1 !
;1957     2983  1 ! SIDE EFFECTS:
;1958     2984  1 !       NONE
;1959     2985  1 !
;1960     2986  1 !--
;1961     2987  1
;1962     2988  2 BEGIN
;1963     2989  2 MAP
;1964     2990  2         GQC:            REF BBLOCK;     ! Pointer to $GETQUI context block
;1965     2991  2 LOCAL
;1966     2992  2         SMQ_N,                          ! Record number of SMQ
;1967     2993  2         SMQ:            REF BBLOCK,     ! Pointer to SMQ
;1968     2994  2         SJH_N,                          ! Record number of SJH
;1969     2995  2         SJH:            REF BBLOCK,     ! Pointer to SJH
;1970     2996  2         SQR_N,                          ! Record number of SQR
;1971     2997  2         SQR:            REF BBLOCK;     ! Pointer to SQR
;1972     2998  2 LITERAL
;1973     2999  2         K_SMQ=          K_REC_1,
;1974     3000  2         K_SJH=          K_REC_2,
;1975     3001  2         K_SQR=          K_REC_3;
;1976     3002  2
;1977     3003  2
;1978     3004  2 ! If the wildcard bit is clear, this request returns information about the
;1979     3005  2 ! current batch job.
;1980     3006  2 !
;1981     3007  2 IF NOT .VALUE_SEARCH_FLAGS[QUI$V_SEARCH_WILDCARD]
;1982     3008  2 THEN
;1983     3009  3     BEGIN
;1984     3010  3
;1985     3011  3     ! Locate the data for this job.
;1986     3012  3     !
;1987     3013  3     IF NOT FIND_PROCESS_DATA(
;1988     3014  3         PDE_K_BATCH, .MBX[ACM$L_PID], FALSE;
;1989     3015  3         , SMQ_N, SJH_N)
;1990     3016  3     THEN
;1991     3017  3         RETURN JBC$_NOSUCHFILE;
```

```
;1992        3018  3
;1993        3019  3
;1994        3020  3      SMQ = READ_RECORD(.SMQ_N);
;1995        3021  3      SJH = READ_RECORD(.SJH_N);
;1996        3022  3      SQR = READ_RECORD(SQR_N = .SJH[SJH$L_CURRENT_FILE_LINK]);
;1997        3023  3      END
;1998        3024  2  ELSE
;1999        3025  3      BEGIN
;2000        3026  3
;2001        3027  3      ! If no job context has been established or we have reached the end of the
;2002        3028  3      ! file list, return an error.
;2003        3029  3      !
;2004        3030  3      IF .GQC[GQC_SMQ_N] EQL 0
;2005        3031  3      OR .GQC[GQC_SJH_N] EQL 0
;2006        3032  3      OR .GQC[GQC_SQR_N] EQL 0
;2007        3033  3      THEN
;2008        3034  3          RETURN JBC$_NOSUCHFILE;
;2009        3035  3
;2010        3036  3
;2011        3037  3      ! Read the queue record and the job record, establish the first or next file
;2012        3038  3      ! record to be returned, and read the file record.
;2013        3039  3      !
;2014        3040  3      SMQ = READ_RECORD(SMQ_N = .GQC[GQC_SMQ_N]);
;2015        3041  3      SJH = READ_RECORD(SJH_N = .GQC[GQC_SJH_N]);
;2016        3042  3      IF .GQC[GQC_SQR_N] EQL SQH$K_RECNO
;2017        3043  3      THEN
;2018        3044  4          BEGIN
;2019        3045  4          SQR_N = .SJH[SJH$L_FILE_LIST];
;2020        3046  4          END
;2021        3047  3      ELSE
;2022        3048  4          BEGIN
;2023        3049  4          SQR = READ_RECORD(.GQC[GQC_SQR_N]);
;2024        3050  4          SQR_N = .SQR[SYM$L_LINK];
;2025        3051  4          RELEASE_RECORD(.GQC[GQC_SQR_N]);
;2026        3052  3          END;
;2027        3053  3      IF .SQR_N EQL 0 THEN RETURN JBC$_NOSUCHFILE;
;2028        3054  3      SQR = READ_RECORD(GQC[GQC_SQR_N] = .SQR_N);
;2029        3055  2      END;
;2030        3056  2
;2031        3057  2
;2032        3058  2  ! Return information about the selected file.
;2033        3059  2  !
;2034        3060  2  RETURN_RESULT(
;2035        3061  2      .GQC,
;2036      P 3062  2      GENERATE_TABLE(
;2037      P 3063  2          QUI$_FILE_COPIES,
;2038      P 3064  2                  K_SQR,  K_COPY_VALUE,          TRUE,  $BYTEOFFSET(SQR$B_FILE_COPIES),         1,
;2039      P 3065  2          QUI$_FILE_COPIES_CHKPT,
;2040      P 3066  2                  K_SJH,  K_COPY_VALUE,          TRUE,  $BYTEOFFSET(SJH$B_FILE_COPIES_CHKPT),   1,
;2041      P 3067  2          QUI$_FILE_COPIES_DONE,
;2042      P 3068  2                  K_SJH,  K_COPY_VALUE,          TRUE,  $BYTEOFFSET(SJH$B_FILE_COPIES_DONE),    1,
;2043      P 3069  2          QUI$_FILE_FLAGS,
;2044      P 3070  2                  K_SQR,  K_FILE_FLAGS,          TRUE,  0,                                      0,
;2045      P 3071  2          QUI$_FILE_SETUP_MODULES,
;2046      P 3072  2                  K_SQR,  K_COPY_VARIABLE,       TRUE,  $BYTEOFFSET(SQR$T_FILE_SETUP_MODULES),  SQR$S_FILE_S
;2047      P 3073  2          QUI$_FILE_SPECIFICATION,
;2048      P 3074  2                  K_SQR,  K_COPY_ASCIC,          TRUE,  $BYTEOFFSET(SQR$T_FILE_SPECIFICATION),  0,
```

```
;  2049        P 3075  2          QUI$_FILE_STATUS,
;  2050        P 3076  2                  K_SQR,  K_FILE_STATUS,          TRUE,   0,                                      0,
;  2051        P 3077  2          QUI$_FIRST_PAGE,
;  2052        P 3078  2                  K_SQR,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SQR$L_FIRST_PAGE),          4,
;  2053        P 3079  2          QUI$_LAST_PAGE,
;  2054          3080  2                  K_SQR,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SQR$L_LAST_PAGE),           4),
;  2055          3081  2      CHECK_R_ACCESS(.SMQ, .SJH);
;  2056          3082  2      .SMQ_N, .SMQ, .SJH_N, .SJH, .SQR_N, .SQR)
;  2057          3083  1 END;


                                    01  05  09  10  00B48 P.AAB:  .BYTE   16, 9, 5, 1                                    ;
                                        0001  0044  00B4C         .WORD   68, 1                                           ;
                                    01  05  07  11  00B50         .BYTE   17, 7, 5, 1                                     ;
                                        0001  0178  00B54         .WORD   376, 1                                          ;
                                    01  05  07  12  00B58         .BYTE   18, 7, 5, 1                                     ;
                                        0001  0179  00B5C         .WORD   377, 1                                          ;
                                    01  08  09  13  00B60         .BYTE   19, 9, 8, 1                                     ;
                                        0000  0000  00B64         .WORD   0, 0                                            ;
                                    01  06  09  14  00B68         .BYTE   20, 9, 6, 1                                     ;
                                        0006  0045  00B6C         .WORD   69, 6                                           ;
                                    01  00  09  15  00B70         .BYTE   21, 9, 0, 1                                     ;
                                        0000  004B  00B74         .WORD   75, 0                                           ;
                                    01  09  09  16  00B78         .BYTE   22, 9, 9, 1                                     ;
                                        0000  0000  00B7C         .WORD   0, 0                                            ;
                                    01  05  09  17  00B80         .BYTE   23, 9, 5, 1                                     ;
                                        0004  003C  00B84         .WORD   60, 4                                           ;
                                    01  05  09  32  00B88         .BYTE   50, 9, 5, 1                                     ;
                                        0004  0040  00B8C         .WORD   64, 4                                           ;
                                              00    00B90         .BYTE   0                                               ;


                                                OE7C  00000 QUI_DISPLAY_FILE:
                                                            .WORD   Save R2,R3,R4,R5,R6,R9,R10,R11                      ; 2961
                                    56 00000000G    EF  9E  00002   MOVAB   READ_RECORD, R6
                                2F  00000000'       EF      01  E0  00009   BBS     #1, VALUE_SEARCH_FLAGS, 1$          ; 3007
                                                        7E  D4  00011   CLRL    -(SP)                                   ; 3013
                                    50 00000000'    EF  D0  00013   MOVL    MBX, R0                                     ; 3014
                                               28   A0  DD  0001A   PUSHL   40(R0)
                                                    01  DD  0001D   PUSHL   #1                                          ; 3013
                                    00000000G       EF      0?  FB  0001F   CALLS   #3, FIND_PROCESS_DATA
                                               69       50  E9  00026   BLBC    R0, 4$
                                                        5A  DD  00029   PUSHL   SMQ_N                                    ; 3020
                                               66       01  FB  0002B   CALLS   #1, READ_RECORD
                                               55       50  D0  0002E   MOVL    R0, SMQ
                                                        5B  DD  00031   PUSHL   SJH_N                                   ; 3021
                                               66       01  FB  00033   CALLS   #1, READ_RECORD
                                               53       50  D0  00036   MOVL    R0, SJH
                                               52  00F0     C3  D0  00039   MOVL    240(SJH), SQR_N                     ; 3022
                                                        5E  11  0003E   BRB     6$
                                               59       04  AC  D0  00040 1$:  MOVL    GQC, R9                         ; 3030
                                                        24  A9  D5  00044   TSTL    36(R9)
                                                            49  13  00047   BEQL    4$
                                                        2C  A9  D5  00049   TSTL    44(R9)                              ; 3031
                                                            44  13  0004C   BEQL    4$
```

```
                        30   A9   D5 0004E          TSTL    48(R9)                          ; 3032
                             3F   13 00051          BEQL    4$                              ;
                     5A      24   A9   D0 00053     MOVL    36(R9), SMQ_N                   ; 3040
                             5A   DD 00057          PUSHL   SMQ_N                           ;
                     66           01   FB 00059     CALLS   #1, READ_RECORD                 ;
                     55           50   D0 0005C     MOVL    R0, SMQ                         ;
                     5B      2C   A9   D0 0005F     MOVL    44(R9), SJH_N                   ; 3041
                             5B   DD 00063          PUSHL   SJH_N                           ;
                     66           01   FB 00065     CALLS   #1, READ_RECORD                 ;
                     53           50   D0 00068     MOVL    R0, SJH                         ;
                     01      30   A9   D1 0006B     CMPL    48(R9), #1                      ; 3042
                             07   12 0006F          BNEQ    2$                              ;
                     52    00F4   C3   D0 00071     MOVL    244(SJH), SQR_N                 ; 3045
                             16   11 00076          BRB     3$                              ; 3042
                        30   A9   DD 00078 2$:      PUSHL   48(R9)                          ; 3049
                     66           01   FB 0007B     CALLS   #1, READ_RECORD                 ;
                     54           50   D0 0007E     MOVL    R0, SQR                         ;
                     52           64   D0 00081     MOVL    (SQR), SQR_N                    ; 3050
                        30   A9   DD 00084          PUSHL   48(R9)                          ; 3051
          00000000G  EF           01   FB 00087     CALLS   #1, RELEASE_RECORD              ;
                                  52   D5 0008E 3$:  TSTL    SQR_N                         ; 3053
                                  08   12 00090     BNEQ    5$                              ;
                     50 00048170  8F   D0 00092 4$:  MOVL    #295280, R0                     ;
                                  04   00099        RET                                     ;
                 30  A9           52   D0 0009A 5$:  MOVL    SQR_N, 48(R9)                   ; 3054
                                  52   DD 0009E 6$:  PUSHL   SQR_N                          ;
                     66           01   FB 000A0     CALLS   #1, READ_RECORD                 ;
                     54           50   D0 000A3     MOVL    R0, SQR                         ;
                                  14   BB 000A6     PUSHR   #^M<R2,R4>                      ; 3082
                                  53   DD 000A8     PUSHL   SJH                             ;
                           0820   8F   BB 000AA     PUSHR   #^M<R5,R11>                     ;
                           0408   8F   BB 000AE     PUSHR   #^M<R3,R10>                     ; 3081
                                  55   DD 000B2     PUSHL   SMQ                             ;
          00000000G  EF           02   FB 000B4     CALLS   #2, CHECK_R_ACCESS              ;
                                  50   DD 000BB     PUSHL   R0                              ;
                         FEF6     CF   9F 000BD     PUSHAB  P.AAB                           ; 3080
                           04     AC   DD 000C1     PUSHL   SQC                             ; 3061
                      F923        CF   09   FB 000C4     CALLS   #9, RETURN_RESULT           ;
                                       04   000C9     RET                                 ; 3083

; Routine Size:  202 bytes,    Routine Base:  CODE + 0B91
```

```
;2059     3084  1 ROUTINE QUI_DISPLAY_FORM(GQC)=
;2060     3085  1
;2061     3086  1 !++
;2062     3087  1 !
;2063     3088  1 ! FUNCTIONAL DESCRIPTION:
;2064     3089  1 !       This routine processes the QUI$_DISPLAY_FORM request.
;2065     3090  1 !
;2066     3091  1 ! INPUT PARAMETERS:
;2067     3092  1 !       GQC             - Pointer to $GETQUI context block.
;2068     3093  1 !
;2069     3094  1 ! IMPLICIT INPUTS:
;2070     3095  1 !       MBX             - Pointer to buffered mailbox message.
;2071     3096  1 !
;2072     3097  1 ! OUTPUT PARAMETERS:
;2073     3098  1 !       NONE
;2074     3099  1 !
;2075     3100  1 ! IMPLICIT OUTPUTS:
;2076     3101  1 !       NONE
;2077     3102  1 !
;2078     3103  1 ! ROUTINE VALUE:
;2079     3104  1 !       Completion status to be returned to requestor.
;2080     3105  1 !
;2081     3106  1 ! SIDE EFFECTS:
;2082     3107  1 !       NONE
;2083     3108  1 !
;2084     3109  1 !--
;2085     3110  1
;2086     3111  2 BEGIN
;2087     3112  2 MAP
;2088     3113  2         GQC:            REF BBLOCK;     ! Pointer to $GETQUI context block
;2089     3114  2 LOCAL
;2090     3115  2         SFM_N,                          ! Record number of SFM
;2091     3116  2         SFM:            REF BBLOCK;     ! Pointer to SFM
;2092     3117  2 LITERAL
;2093     3118  2         K_SFM=          K_REC_1;
;2094     3119  2 LABEL
;2095     3120  2         FIND_SELECTED;
;2096     3121  2
;2097     3122  2
;2098     3123  2 ! Ensure that either a search name or number was specified.
;2099     3124  2 !
;2100     3125  2 IF NOT .ITEM_PRESENT[QUI$_SEARCH_NAME]
;2101     3126  2 AND NOT .ITEM_PRESENT[QUI$_SEARCH_NUMBER]
;2102     3127  2 THEN
;2103     3128  2     RETURN JBC$_MISREQPAR;
;2104     3129  2
;2105     3130  2
;2106     3131  2 ! Set the form wildcard bit.
;2107     3132  2 !
;2108     3133  2 GQC[GQC_SFX_WILD] = WILD_SEARCH_NAME();
;2109     3134  2
;2110     3135  2
;2111     3136  2 ! If this is the first call, advance to the first form index record.
;2112     3137  2 !
;2113     3138  2 IF .GQC[GQC_SFX_N] EQL SQH$K_RECNO
;2114     3139  2 THEN
;2115     3140  3     BEGIN
```

```
;  2116          3141  3     LOCAL
;  2117          3142  3         SQH:            REF BBLOCK;     ! Pointer to SQH
;  2118          3143  3
;  2119          3144  3     SQH = READ_RECORD(SQH$K_RECNO);
;  2120          3145  3     GQC[GQC_SFX_N] = .SQH[SQH$L_FORM_INDEX_LIST];
;  2121          3146  3     GQC[GQC_SFE_N] = $BYTEOFFSET(SYM$T_DATA) - SFX$S_SFX;
;  2122          3147  3     RELEASE_RECORD(SQH$K_RECNO);
;  2123          3148  2     END;
;  2124          3149  2
;  2125          3150  2
;  2126          3151  3 FIND_SELECTED:  BEGIN
;  2127          3152  3
;  2128          3153  3
;  2129          3154  3 ! Loop over form index records.
;  2130          3155  3 !
;  2131          3156  3 WHILE TRUE DO
;  2132          3157  4     BEGIN
;  2133          3158  4     LOCAL
;  2134          3159  4         SFX_N,                  ! Record number of SFX
;  2135          3160  4         SFX:    REF BBLOCK,     ! Pointer to SFX
;  2136          3161  4         SFE:    REF BBLOCK;     ! Pointer to SFX entry
;  2137          3162  4
;  2138          3163  4
;  2139          3164  4     ! No more records -- return failure.
;  2140          3165  4     !
;  2141          3166  4     IF .GQC[GQC_SFX_N] EQL 0
;  2142          3167  4     THEN
;  2143          3168  5         BEGIN
;  2144          3169  5         GQC[GQC_SFX_WILD] = FALSE;
;  2145          3170  5         RETURN JBC$_NOSUCHFORM;
;  2146          3171  4         END;
;  2147          3172  4
;  2148          3173  4
;  2149          3174  4     ! Read the form index record.
;  2150          3175  4     !
;  2151          3176  4     SFX = READ_RECORD(SFX_N = .GQC[GQC_SFX_N]);
;  2152          3177  4
;  2153          3178  4
;  2154          3179  4     ! Loop over form entries.
;  2155          3180  4     !
;  2156          3181  4     WHILE TRUE DO
;  2157          3182  5         BEGIN
;  2158          3183  5
;  2159          3184  5         ! Advance to next entry, and ensure that it is valid.
;  2160          3185  5         !
;  2161          3186  5         IF TESTBITCC(GQC[GQC_SFX_NO_ADV])
;  2162          3187  5             THEN GQC[GQC_SFE_N] = .GQC[GQC_SFE_N] + SFX$S_SFX;
;  2163          3188  5         IF .GQC[GQC_SFE_N] GEQU $BYTEOFFSET(SYM$T_DATA) + SFX$S_SFX * SFX$K_ENTRIES
;  2164          3189  5             THEN EXITLOOP;
;  2165          3190  5         SFE = .SFX + .GQC[GQC_SFE_N];
;  2166          3191  5         IF CH$RCHAR(SFE[SFX$T_NAME]) EQL 0 THEN EXITLOOP;
;  2167          3192  5
;  2168          3193  5
;  2169          3194  5         ! Match this entry with the selector -- both the name and number
;  2170          3195  5         ! must match.
;  2171          3196  5         !
;  2172          3197  5         IF
```

```
;  2173     3198  6              BEGIN
;  2174     3199  6              IF .ITEM_PRESENT[QUI$_SEARCH_NAME]
;  2175     3200  6              THEN
;  2176     3201  6                  FMG$MATCH_NAME(
;  2177     3202  6                      CH$RCHAR(SFE[SFX$T_NAME]),
;  2178     3203  6                      SFE[SFX$T_NAME] + 1,
;  2179     3204  6                      .VALUE_SEARCH_NAME[SDSC_W_LENGTH],
;  2180     3205  6                      .VALUE_SEARCH_NAME[SDSC_A_POINTER])
;  2181     3206  6              ELSE
;  2182     3207  6                  TRUE
;  2183     3208  6              END
;  2184     3209  5          AND
;  2185     3210  6              BEGIN
;  2186     3211  6              IF .ITEM_PRESENT[QUI$_SEARCH_NUMBER]
;  2187     3212  6              THEN
;  2188     3213  6                  .VALUE_SEARCH_NUMBER EQL .SFE[SFX$L_NUMBER]
;  2189     3214  6              ELSE
;  2190     3215  6                  TRUE
;  2191     3216  6              END
;  2192     3217  5          THEN
;  2193     3218  6              BEGIN
;  2194     3219  6              SFM = READ_RECORD(SFM_N = .SFE[SFX$L_FORM_LINK]);
;  2195     3220  6              LEAVE FIND_SELECTED;
;  2196     3221  5              END;
;  2197     3222  4          END;
;  2198     3223  4
;  2199     3224  4
;  2200     3225  4      ! Advance to next form index record.
;  2201     3226  4      !
;  2202     3227  4      GQC[GQC_SFX_N] = .SFX[SYM$L_LINK];
;  2203     3228  4      GQC[GQC_SFE_N] = $BYTEOFFSET(SYM$T_DATA) - SFX$S_SFX;
;  2204     3229  4      RELEASE_RECORD(.SFX_N);
;  2205     3230  3      END;
;  2206     3231  3
;  2207     3232  3
;  2208     3233  2  END; ! of block FIND_SELECTED
;  2209     3234  2
;  2210     3235  2
;  2211     3236  2  ! Return information about the selected form.
;  2212     3237  2  !
;  2213     3238  2  RETURN_RESULT(
;  2214     3239  2      .GQC,
;  2215   P 3240  2      GENERATE_TABLE(
;  2216   P 3241  2          QUI$_FORM_DESCRIPTION,
;  2217   P 3242  2                  K_SFM,  K_COPY_ASCIC,       FALSE,  $BYTEOFFSET(SFM$T_DESCRIPTION),      0,
;  2218   P 3243  2          QUI$_FORM_FLAGS,
;  2219   P 3244  2                  K_SFM,  K_FORM_FLAGS,       FALSE,  0,                                   0,
;  2220   P 3245  2          QUI$_FORM_LENGTH,
;  2221   P 3246  2                  K_SFM,  K_COPY_VALUE,       FALSE,  $BYTEOFFSET(SFM$B_LENGTH),           1,
;  2222   P 3247  2          QUI$_FORM_MARGIN_BOTTOM,
;  2223   P 3248  2                  K_SFM,  K_COPY_VALUE,       FALSE,  $BYTEOFFSET(SFM$B_MARGIN_BOTTOM),    1,
;  2224   P 3249  2          QUI$_FORM_MARGIN_LEFT,
;  2225   P 3250  2                  K_SFM,  K_COPY_VALUE,       FALSE,  $BYTEOFFSET(SFM$W_MARGIN_LEFT),      2,
;  2226   P 3251  2          QUI$_FORM_MARGIN_RIGHT,
;  2227   P 3252  2                  K_SFM,  K_COPY_VALUE,       FALSE,  $BYTEOFFSET(SFM$W_MARGIN_RIGHT),     2,
;  2228   P 3253  2          QUI$_FORM_MARGIN_TOP,
;  2229   P 3254  2                  K_SFM,  K_COPY_VALUE,       FALSE,  $BYTEOFFSET(SFM$B_MARGIN_TOP),       1,
```

```
;  2230        P 3255  2          QUI$_FORM_NAME,
;  2231        P 3256  2                  K_SFM,  K_COPY_ASCIC,          FALSE,  $BYTEOFFSET(SFM$T_NAME),                0,
;  2232        P 3257  2          QUI$_FORM_NUMBER,
;  2233        P 3258  2                  K_SFM,  K_COPY_VALUE,          FALSE,  $BYTEOFFSET(SFM$L_NUMBER),              4,
;  2234        P 3259  2          QUI$_FORM_SETUP_MODULES,
;  2235        P 3260  2                  K_SFM,  K_COPY_VARIABLE,       TRUE,   $BYTEOFFSET(SFM$T_FORM_SETUP_MODULES),  SFM$S_FORM_S
;  2236        P 3261  2          QUI$_FORM_STOCK,
;  2237        P 3262  2                  K_SFM,  K_COPY_ASCIC,          FALSE,  $BYTEOFFSET(SFM$T_STOCK),               0,
;  2238        P 3263  2          QUI$_FORM_WIDTH,
;  2239        P 3264  2                  K_SFM,  K_COPY_VALUE,          FALSE,  $BYTEOFFSET(SFM$W_WIDTH),               2,
;  2240        P 3265  2          QUI$_PAGE_SETUP_MODULES,
;  2241          3266  2                  K_SFM,  K_COPY_VARIABLE,       TRUE,   $BYTEOFFSET(SFM$T_PAGE_SETUP_MODULES),  SFM$S_PAGE_S
;  2242          3267  2      TRUE,
;  2243          3268  2      .SFM_N, .SFM)
;  2244          3269  1 END;

                                        00C5B                   .BLKB   1
                                00  00  05  18   00C5C P.AAC:   .BYTE   24, 5, 0, 0                                          ;
                                    0000  0010      00C60       .WORD   16, 0                                                   ;
                                00  0A  05  19      00C64       .BYTE   25, 5, 10, 0                                            ;
                                    0000  0000      00C68       .WORD   0, 0                                                    ;
                                00  05  05  1A      00C6C       .BYTE   26, 5, 5, 0                                             ;
                                    0001  015A      00C70       .WORD   346, 1                                                  ;
                                00  05  05  1B      00C74       .BYTE   27, 5, 5, 0                                             ;
                                    0001  015B      00C78       .WORD   347, 1                                                  ;
                                00  05  05  1C      00C7C       .BYTE   28, 5, 5, 0                                             ;
                                    0002  0154      00C80       .WORD   340, 2                                                  ;
                                00  05  05  1D      00C84       .BYTE   29, 5, 5, 0                                             ;
                                    0002  0156      00C88       .WORD   342, 2                                                  ;
                                00  05  05  1E      00C8C       .BYTE   30, 5, 5, 0                                             ;
                                    0001  015C      00C90       .WORD   348, 1                                                  ;
                                00  00  05  1F      00C94       .BYTE   31, 5, 0, 0                                             ;
                                    0000  0110      00C98       .WORD   272, 0                                                  ;
                                00  05  05  20      00C9C       .BYTE   32, 5, 5, 0                                             ;
                                    0004  0130      00CA0       .WORD   304, 4                                                  ;
                                01  06  05  21      00CA4       .BYTE   33, 5, 6, 1                                             ;
                                    0006  015D      00CA8       .WORD   349, 6                                                  ;
                                00  00  05  22      00CAC       .BYTE   34, 5, 0, 0                                             ;
                                    0000  0134      00CB0       .WORD   308, 0                                                  ;
                                00  05  05  23      00CB4       .BYTE   35, 5, 5, 0                                             ;
                                    0002  0158      00CB8       .WORD   344, 2                                                  ;
                                01  06  05  39      00CBC       .BYTE   57, 5, 6, 1                                             ;
                                    0006  0163      00CC0       .WORD   355, 6                                                  ;
                                          00        00CC4       .BYTE   0                                                       ;

                                                  0FFC 00000 QUI_DISPLAY_FORM:
                                                             .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11                    ; 3084
                                    5E          08  C2 00002        SUBL2   #8, SP                                          ;
10 00000000'                        EF          05  E0 00005        BBS     #5, ITEM_PRESENT+9, 1$                          ; 3125
08 00000000'                        EF          06  E0 0000D        BBS     #6, ITEM_PRESENT+9, 1$                          ; 3126
                                    50 00048108 8F  D0 00015        MOVL    #295176, R0                                     ; 3128
                                                    04 0001C        RET                                                     ;
                                    56      04  AC  D0 0001D 1$:    MOVL    GQC, R6                                         ; 3133
```

```
                        F7FE   CF              00 FB 00021          CALLS   #0, WILD_SEARCH_NAME                    ;
      08    A6                01              50 F0 00026          INSV    R0, #1, #1, 8(R6)                      ;
                              58        14    A6 9E 0002C          MOVAB   20(R6), R8                             ; 3138
                              01              68 D1 00030          CMPL    (R8), #1                               ;
                                              1A 12 00033          BNEQ    2$                                     ;
                                              01 DD 00035          PUSHL   #1                                     ; 3144
                    00000000G   EF              01 FB 00037          CALLS   #1, READ_RECORD                        ;
                              68        34    A0 D0 0003E          MOVL    52(SQH), (R8)                          ; 3145
                           18   A6            1C CE 00042          MNEGL   #28, 24(R6)                            ; 3146
                                              01 DD 00046          PUSHL   #1                                     ; 3147
                    00000000G   EF              01 FB 00048          CALLS   #1, RELEASE_RECORD                     ;
                              5A        18    A6 9E 0004F 2$:      MOVAB   24(R6), R10                            ; 3188
                              5A        18    A6 9E 00053          MOVAB   24(R6), R10                            ; 3228
                              68              D5 00057 3$:         TSTL    (R8)                                   ; 3166
                                              0C 12 00059          BNEQ    4$                                     ;
                           08   A6            02 8A 0005B          BICB2   #2, 8(R6)                              ; 3169
                              50 00048158   8F D0 0005F          MOVL    #295256, R0                            ; 3170
                                              04 00066          RET                                            ;
                              59              68 D0 00067 4$:      MOVL    (R8), SFX_N                            ; 3176
                                              59 DD 0006A          PUSHL   SFX_N                                  ;
                    00000000G   EF              01 FB 0006C          CALLS   #1, READ_RECORD                        ;
                              5B              50 D0 00073          MOVL    R0, SFX                                ;
                 04        08   A6            05 E4 00076 5$:      BBSC    #5, 8(R6), 6$                          ; 3186
                           18   A6            28 C0 0007B          ADDL2   #40, 24(R6)                            ; 3187
                    0000C1EC    8F            6A D1 0007F 6$:      CMPL    (R10), #492                            ; 3188
                                              53 1E 00086          BGEQU   9$                                     ;
                 57             5B            6A C1 00088          ADDL3   (R10), SFX, SFE                        ; 3190
                                              67 95 0008C          TSTB    (SFE)                                  ; 3191
                                              4B 13 0008E          BEQL    9$                                     ;
              1E 00000000'      EF            05 E1 00090          BBC     #5, ITEM_PRESENT+9, 7$                 ; 3199
                              53        01    A7 9E 00098          MOVAB   1(SFE), R3                             ; 3203
                              55 00000000'    EF D0 0009C          MOVL    VALUE_SEARCH_NAME+2, R5                ; 3202
                              54 00000000'    EF 3C 000A3          MOVZWL  VALUE_SEARCH_NAME, R4                  ;
                              52              67 9A 000AA          MOVZBL  (SFE), R2                              ;
                                 00000000G    00 16 000AD          JSB     FMG$MATCH_NAME                         ;
                              C0              50 E9 000B3          BLBC    R0, 5$                                 ;
              0A 00000000'      EF            06 E1 000B6 7$:      BBC     #6, ITEM_PRESENT+9, 8$                 ; 3211
                        20    A7 00000000'    EF D1 000BE          CMPL    VALUE_SEARCH_NUMBER, 32(SFE)           ; 3213
                                              AE 12 000C6          BNEQ    5$                                     ;
                              6E        24    A7 D0 000C8 8$:      MOVL    36(SFE), SFM_N                         ; 3219
                                              6E DD 000CC          PUSHL   SFM_N                                  ;
                    00000000G   EF              01 FB 000CE          CALLS   #1, READ_RECORD                        ;
                           04   AE            50 D0 000D5          MOVL    R0, SFM                                ;
                                              12 11 000D9          BRB     10$                                    ; 3220
                              68              6B D0 000DB 9$:      MOVL    (SFX), (R8)                            ; 3227
                              6A              1C CE 000DE          MNEGL   #28, (R10)                             ; 3228
                                              59 DD 000E1          PUSH    SFX_N                                  ; 3229
                    00000000G   EF              01 FB 000E3          CALLS   #1, RELEASE_RECORD                     ;
                                          FF6A  31 000EA          BRW     3$                                     ; 3156
                                 04       AE    DD 000ED 10$:      PUSHL   SFM                                    ; 3268
                                 04       AE    DD 000F0           PUSHL   SFM_N                                  ;
                                          01    DD 000F3           PUSHL   #1                                     ; 3238
                                       FE9E   CF  9F 000F5           PUSHAB  P.AAC                                  ; 3266
                                          56    DD 000F9           PUSHL   R6                                     ; 3239
                           F788   CF            05 FB 000FB          CALLS   #5, RETURN_RESULT                      ;
                                              04 00100          RET                                            ; 3269
```

; Routine Size: 257 bytes,   Routine Base: CO'E + 0CC5

```
;  2246     3270  1 ROUTINE QUI_DISPLAY_JOB(GQC)=
;  2247     3271  1
;  2248     3272  1 !++
;  2249     3273  1 !
;  2250     3274  1 ! FUNCTIONAL DESCRIPTION:
;  2251     3275  1 !       This routine processes the QUI$_DISPLAY_JOB request.
;  2252     3276  1 !
;  2253     3277  1 ! INPUT PARAMETERS:
;  2254     3278  1 !       GQC             - Pointer to $GETQUI context block.
;  2255     3279  1 !
;  2256     3280  1 ! IMPLICIT INPUTS:
;  2257     3281  1 !       MBX             - Pointer to buffered mailbox message.
;  2258     3282  1 !
;  2259     3283  1 ! OUTPUT PARAMETERS:
;  2260     3284  1 !       NONE
;  2261     3285  1 !
;  2262     3286  1 ! IMPLICIT OUTPUTS:
;  2263     3287  1 !       NONE
;  2264     3288  1 !
;  2265     3289  1 ! ROUTINE VALUE:
;  2266     3290  1 !       Completion status to be returned to requestor.
;  2267     3291  1 !
;  2268     3292  1 ! SIDE EFFECTS:
;  2269     3293  1 !       NONE
;  2270     3294  1 !
;  2271     3295  1 !--
;  2272     3296  1
;  2273     3297  2 BEGIN
;  2274     3298  2 MAP
;  2275     3299  2         GQC:            REF BBLOCK;     ! Pointer to $GETQUI context block
;  2276     3300  2 LOCAL
;  2277     3301  2         SMQ_N,                          ! Record number of SMQ
;  2278     3302  2         SMQ:            REF BBLOCK,     ! Pointer to SMQ
;  2279     3303  2         SJH_N,                          ! Record number of SJH
;  2280     3304  2         SJH:            REF BBLOCK;     ! Pointer to SJH
;  2281     3305  2 LITERAL
;  2282     3306  2         K_SMQ=          K_REC_1,
;  2283     3307  2         K_SJH=          K_REC_2;
;  2284     3308  2
;  2285     3309  2
;  2286     3310  2 ! If the wildcard bit is clear, this request returns information about the
;  2287     3311  2 ! current batch job.
;  2288     3312  2 !
;  2289     3313  2 IF NOT .VALUE_SEARCH_FLAGS[QUI$V_SEARCH_WILDCARD]
;  2290     3314  2 THEN
;  2291     3315  3     BEGIN
;  2292     3316  3
;  2293     3317  3     ! Locate the data for this job.
;  2294     3318  3     !
;  2295     3319  3     IF NOT FIND_PROCESS_DATA(
;  2296     3320  3         PDE_K_BATCH, .MBX[ACM$_PID], FALSE;
;  2297     3321  3         , SMQ_N, SJH_N)
;  2298     3322  3     THEN
;  2299     3323  3         RETURN JBC$_NOSUCHJOB;
;  2300     3324  3
;  2301     3325  3
;  2302     3326  3     SMQ = READ_RECORD(.SMQ_N);
```

```
;2303     3327  3      SJH = READ_RECORD(.SJH_N);
;2304     3328  3      END
;2305     3329  2  ELSE
;2306     3330  3      BEGIN
;2307     3331  3
;2308     3332  3      ! If no queue context has been established or we have reached the end of the
;2309     3333  3      ! job list, return an error.
;2310     3334  3      !
;2311     3335  3      IF .GQC[GQC_SMQ_N] EQL 0
;2312     3336  3      OR .GQC[GQC_SJH_Q] EQL GQC_K_DONE
;2313     3337  3      THEN
;2314     3338  3          RETURN JBC$_NOSUCHJOB;
;2315     3339  3
;2316     3340  3
;2317     3341  3      ! Read the queue record, establish the next job record to be returned,
;2318     3342  3      !and read the job record.
;2319     3343  3      !
;2320     3344  3      SMQ = READ_RECORD(SMQ_N = .GQC[GQC_SMQ_N]);
;2321     3345  3      SJH_N = 0;
;2322     3346  3      WHILE TRUE DO
;2323     3347  4          BEGIN
;2324     3348  4          IF .GQC[GQC_SJH_N] EQL 0
;2325     3349  4          THEN
;2326     3350  5              BEGIN
;2327     3351  5              GQC[GQC_SJH_Q] = .GQC[GQC_SJH_Q] + 1;
;2328     3352  5              CASE .GQC[GQC_SJH_Q] FROM GQC_K_CURRENT TO GQC_K_HOLD OF
;2329     3353  5                  SET
;2330     3354  5
;2331     3355  5
;2332     3356  5                  [OUTRANGE]:
;2333     3357  6                      BEGIN
;2334     3358  6                      RETURN JBC$_NOSUCHJOB;
;2335     3359  5                      END;
;2336     3360  5
;2337     3361  5
;2338     3362  5                  [GQC_K_CURRENT]:
;2339     3363  6                      BEGIN
;2340     3364  6                      GQC[GQC_SJH_N] = .SMQ[SMQ$L_CURRENT_LIST];
;2341     3365  5                      END;
;2342     3366  5
;2343     3367  5
;2344     3368  5                  [GQC_K_PENDING]:
;2345     3369  6                      BEGIN
;2346     3370  6                      IF .SMQ[SMQ$W_PENDING_JOB_COUNT] NEQ 0
;2347     3371  6                      THEN
;2348     3372  7                          BEGIN
;2349     3373  7                          LOCAL
;2350     3374  7                              SQH:        REF BBLOCK;
;2351     3375  7
;2352     3376  7                          SQH = READ_RECORD(SQH$K_RECNO);
;2353     3377  7                          IF .SMQ[SMQ$V_BATCH]
;2354     3378  7                              THEN GQC[GQC_SJH_N] = .SQH[SQH$L_PENDING_BATCH_LIST]
;2355     3379  7                              ELSE GQC[GQC_SJH_N] = .SQH[SQH$L_PENDING_PRINT_LIST];
;2356     3380  7                          RELEASE_RECORD(SQH$K_RECNO);
;2357     3381  6                          END;
;2358     3382  5                      END;
;2359     3383  5
```

```
; 2360      3384  5
; 2361      3385  5                [GQC_K_TIMER]:
; 2362      3386  6                    BEGIN
; 2363      3387  6                    GQC[GQC_INTERVENING_BLOCKS] = 0;
; 2364      3388  6                    GQC[GQC_INTERVENING_JOBS] = 0;
; 2365      3389  6                    IF .SMQ[SMQ$W_TIMER_JOB_COUNT] NEQ 0
; 2366      3390  6                    THEN
; 2367      3391  7                        BEGIN
; 2368      3392  7                        LOCAL
; 2369      3393  7                            SQH:        REF BBLOCK;
; 2370      3394  7
; 2371      3395  7                        SQH = READ_RECORD(SQH$K_RECNO);
; 2372      3396  7                        GQC[GQC_SJB_N] = .SQH[SQH$L_TIMER_LIST];
; 2373      3397  7                        RELEASE_RECORD(SQH$K_RECNO);
; 2374      3398  6                        END;
; 2375      3399  5                    END;
; 2376      3400  5
; 2377      3401  5
; 2378      3402  5                [GQC_K_HOLD]:
; 2379      3403  6                    BEGIN
; 2380      3404  6                    GQC[GQC_SJH_N] = .SMQ[SMQ$L_HOLD_LIST];
; 2381      3405  5                    END;
; 2382      3406  5
; 2383      3407  5
; 2384      3408  5                TES;
; 2385      3409  5            END
; 2386      3410  4        ELSE
; 2387      3411  5            BEGIN
; 2388      3412  5            IF .SJH_N EQL 0 THEN SJH = READ_RECORD(SJH_N = .GQC[GQC_SJH_N]);
; 2389      3413  5            IF TESTBITCC(GQC[GQC_SJH_NO_ADV])
; 2390      3414  5                THEN GQC[GQC_SJH_N] = .SJH[SYM$L_LINK];
; 2391      3415  5            RELEASE_RECORD(.SJH_N);
; 2392      3416  4            END;
; 2393      3417  4
; 2394      3418  4
; 2395      3419  4        IF .GQC[GQC_SJH_N] NEQ 0
; 2396      3420  4        THEN
; 2397      3421  5            BEGIN
; 2398      3422  5            SJH = READ_RECORD(SJH_N = .GQC[GQC_SJH_N]);
; 2399      3423  5            GQC[GQC_SQB_N] = SQH$B_RECNO;
; 2400      3424  5            IF
; 2401      3425  6                BEGIN
; 2402      3426  7                IF ONEOF (.GQC[GQC_SJH_Q], BMSK_(GQC_K_PENDING, GQC_K_TIMER))
; 2403      3427  6                AND .SJH[SJH$L_QUEUE_LINK] NEQ .SMQ_N
; 2404      3428  6                THEN
; 2405      3429  6                    FALSE
; 2406      3430  6
; 2407      3431  6                ELSE IF NOT .VALUE_SEARCH_FLAGS[QUI$V_SEARCH_ALL_JOBS]
; 2408      3432  6                AND CH$NEQ(12, SJH[SJH$T_USERNAME], 12, MBX[ACM$T_USERNAME])
; 2409      3433  6                THEN
; 2410      3434  7                    BEGIN
; 2411      3435  7                    IF .GQC[GQC_SJH_Q] EQL GQC_K_PENDING
; 2412      3436  7                    THEN
; 2413      3437  8                        BEGIN
; 2414      3438  8                        GQC[GQC_INTERVENING_JOBS] = .GQC[GQC_INTERVENING_JOBS] + 1;
; 2415      3439  8                        IF NOT .SMQ[SMQ$V_BATCH]
; 2416      3440  8                            THEN GQC[GQC_INTERVENING_BLOCKS] = .GQC[GQC_INTERVENING_BLOCKS] + .SJH[SJH$L_JOB
```

```
;  2417          3441  7                        END;
;  2418          3442  7                    FALSE
;  2419          3443  7                    END
;  2420          3444  7
;  2421          3445  6                ELSE
;  2422          3446  6                    TRUE
;  2423          3447  6                END
;  2424          3448  5            THEN
;  2425          3449  5                EXITLOOP;
;  2426          3450  4            END;
;  2427          3451  3        END;
;  2428          3452  2    END;
;  2429          3453  2
;  2430          3454  2
;  2431          3455  2 ! Return information about the selected job.
;  2432          3456  2 !
;  2433          3457  2 RETURN_RESULT(
;  2434          3458  2     .GDC,
;  2435        P 3459  2     GENERATE_TABLE(
;  2436        P 3460  2         QUI$_ACCOUNT_NAME,
;  2437        P 3461  2                 K_SJH,  K_COPY_TRIMMED,         TRUE,   $BYTEOFFSET(SJH$T_ACCOUNT),          SJH$S_ACCOUN
;  2438        P 3462  2         QUI$_AFTER_TIME,
;  2439        P 3463  2                 K_SJH,  K_COPY_VALUE,           FALSE,  $BYTEOFFSET(SJH$Q_AFTER_TIME),       SJH$S_AFTER_
;  2440        P 3464  2         QUI$_CHARACTERISTICS,
;  2441        P 3465  2                 K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$T_CHARACTERISTICS),  SJH$S_CHARAC
;  2442        P 3466  2         QUI$_CHECKPOINT_DATA,
;  2443        P 3467  2                 K_SJH,  K_COPY_VARIABLE,        TRUE,   $BYTEOFFSET(SJH$T_CHECKPOINT),       SJH$S_CHECKP
;  2444        P 3468  2         QUI$_CLI,
;  2445        P 3469  2                 K_SJH,  K_COPY_ASCIC,           TRUE,   $BYTEOFFSET(SJH$T_CLI),              0,
;  2446        P 3470  2         QUI$_COMPLETED_BLOCKS,
;  2447        P 3471  2                 K_SJH,  K_COMPLETED_BLOCKS,     FALSE,  0,                                   0,
;  2448        P 3472  2         QUI$_CONDITION_VECTOR,
;  2449        P 3473  2                 K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$L_CONDITION_1),      SJH$S_CONDIT
;  2450        P 3474  2         QUI$_CPU_LIMIT,
;  2451        P 3475  2                 K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$L_CPU_MAXIMUM),      4,
;  2452        P 3476  2         QUI$_ENTRY_NUMBER,
;  2453        P 3477  2                 K_SJH,  K_COPY_VALUE,           FALSE,  $BYTEOFFSET(SYM$L_ENTRY_NUMBER),     4,
;  2454        P 3478  2         QUI$_FORM_NAME,
;  2455        P 3479  2                 K_SJH,  K_COPY_FORM_NAME,       TRUE,   $BYTEOFFSET(SJH$L_FORM_LINK),        0,
;  2456        P 3480  2         QUI$_INTERVENING_BLOCKS,
;  2457        P 3481  2                 0,      K_INTERVENING_BLOCKS,   FALSE,  0,                                   0,
;  2458        P 3482  2         QUI$_INTERVENING_JOBS,
;  2459        P 3483  2                 0,      K_INTERVENING_JOBS,     FALSE,  0,                                   0,
;  2460        P 3484  2         QUI$_JOB_COPIES,
;  2461        P 3485  2                 K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$B_JOB_COPIES),       1,
;  2462        P 3486  2         QUI$_JOB_COPIES_CHKPT,
;  2463        P 3487  2                 K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$B_JOB_COPIES_CHKPT), 1,
;  2464        P 3488  2         QUI$_JOB_COPIES_DONE,
;  2465        P 3489  2                 K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$B_JOB_COPIES_DONE),  1,
;  2466        P 3490  2         QUI$_JOB_FLAGS,
;  2467        P 3491  2                 K_SJH,  K_JOB_FLAGS,            TRUE,   0,                                   0,
;  2468        P 3492  2         QUI$_JOB_NAME,
;  2469        P 3493  2                 K_SJH,  K_COPY_ASCIC,           TRUE,   $BYTEOFFSET(SJH$T_NAME),             0,
;  2470        P 3494  2         QUI$_JOB_SIZE,
;  2471        P 3495  2                 K_SJH,  K_COPY_VALUE,           FALSE,  $BYTEOFFSET(SJH$L_JOB_SIZE),         4,
;  2472        P 3496  2         QUI$_JOB_STATUS,
;  2473        P 3497  2                 K_SJH,  K_JOB_STATUS,           FALSE,  0,                                   0,
```

```
; 2474        P 3498  2          QUI$_LOG_QUEUE,
; 2475        P 3499  2                  K_SJH,  K_COPY_QUEUE_NAME,      TRUE,   $BYTEOFFSET(SJH$L_LOG_QUEUE_LINK),      0,
; 2476        P 3500  2          QUI$_LOG_SPECIFICATION,
; 2477        P 3501  2                  K_SJH,  K_COPY_VARIABLE,        TRUE,   $BYTEOFFSET(SJH$T_LOG_SPECIFICATION),   SJH$S_LOG_SP
; 2478        P 3502  2          QUI$_NOTE,
; 2479        P 3503  2                  K_SJH,  K_COPY_VARIABLE,        TRUE,   $BYTEOFFSET(SJH$T_NOTE),                SJH$S_NOTE,
; 2480        P 3504  2          QUI$_OPERATOR_REQUEST,
; 2481        P 3505  2                  K_SJH,  K_COPY_VARIABLE,        TRUE,   $BYTEOFFSET(SJH$T_OPERATOR_REQUEST),    SJH$S_OPERAT
; 2482        P 3506  2          QUI$_PRIORITY,
; 2483        P 3507  2                  K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$B_PRIORITY),            1,
; 2484        P 3508  2          QUI$_QUEUE_NAME,
; 2485        P 3509  2                  K_SJH,  K_COPY_QUEUE_NAME,      TRUE,   $BYTEOFFSET(SJH$L_QUEUE_LINK),          0,
; 2486        P 3510  2          QUI$_REFUSAL_REASON,
; 2487        P 3511  2                  K_SJH,  K_COPY_VARIABLE,        TRUE,   $BYTEOFFSET(SJH$T_REFUSAL_REASON),      SJH$S_REFUSA
; 2488        P 3512  2          QUI$_REQUEUE_PRIORITY,
; 2489        P 3513  2                  K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$B_REQUEUE_PRIORITY),    1,
; 2490        P 3514  2          QUI$_REQUEUE_QUEUE_NAME,
; 2491        P 3515  2                  K_SJH,  K_COPY_QUEUE_NAME,      TRUE,   $BYTEOFFSET(SJH$L_REQUEUE_QUEUE_LINK),  0,
; 2492        P 3516  2          QUI$_SUBMISSION_TIME,
; 2493        P 3517  2                  K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$Q_TIME),                SJH$S_TIME,
; 2494        P 3518  2          QUI$_UIC,
; 2495        P 3519  2                  K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$L_UIC),                 4,
; 2496        P 3520  2          QUI$_USERNAME,
; 2497        P 3521  2                  K_SJH,  K_COPY_TRIMMED,         TRUE,   $BYTEOFFSET(SJH$T_USERNAME),            SJH$S_USERNA
; 2498        P 3522  2          QUI$_WSDEFAULT,
; 2499        P 3523  2                  K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$W_WSDEFAULT),           2,
; 2500        P 3524  2          QUI$_WSEXTENT,
; 2501        P 3525  2                  K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$W_WSEXTENT),            2,
; 2502        P 3526  2          QUI$_WSQUOTA,
; 2503          3527  2                  K_SJH,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SJH$W_WSQUOTA),             2),
; 2504          3528  2      CHECK_R_ACCESS(.SMQ, .SJH);
; 2505          3529  2      .SMQ_N, .SMQ, .SJH_N, .SJH)
; 2506          3530  1 END;


                                00DC6                   .BLKB   2
                01  04  07  01 00DC8 P.AAD:            .BYTE   1, 7, 4, 1
                    0008  0014  00DCC                   .WORD   20, 8
                00  05  07  02 00DD0                    .BYTE   2, 7, 5, 0
                    0008  0098  00DD4                   .WORD   152, 8
                01  05  07  07 00DD8                    .BYTE   7, 7, 5, 1
                    0010  00A0  00DDC                   .WORD   160, 16
                01  06  07  08 00DE0                    .BYTE   8, 7, 6, 1
                    0020  0180  00DE4                   .WORD   384, 32
                01  00  07  09 00DE8                    .BYTE   9, 7, 0, 1
                    0000  00B0  00DEC                   .WORD   176, 0
                00  07  07  0A 00DF0                    .BYTE   10, 7, 7, 0
                    0000  0000  00DF4                   .WORD   0, 0
                01  05  07  0B 00DF8                    .BYTE   11, 7, 5, 1
                    000C  00DC  00DFC                   .WORD   220, 12
                01  05  07  0D 00E00                    .BYTE   13, 7, 5, 1
                    0004  00E8  00E04                   .WORD   232, 4
                00  05  07  0F 00E08                    .BYTE   15, 7, 5, 0
                    0004  0008  00E0C                   .WORD   8, 4
                01  01  07  1F 00E10                    .BYTE   31, 7, 1, 1
                    0000  00FC  00E14                   .WORD   252, 0
```

```
                00  0C  00  25  00E18          .BYTE   37, 0, 12, 0
                    0000  0000  00E1C          .WORD   0, 0
                00  0D  00  26  00E20          .BYTE   38, 0, 13, 0
                    0000  0000  00E24          .WORD   0, 0
                01  05  07  27  00E28          .BYTE   39, 7, 5, 1
                    0001  017A  00E2C          .WORD   378, 1
                01  05  07  28  00E30          .BYTE   40, 7, 5, 1
                    0001  017B  00E34          .WORD   379, 1
                01  05  07  29  00E38          .BYTE   41, 7, 5, 1
                    0001  017C  00E3C          .WORD   380, 1
                01  0E  07  2A  00E40          .BYTE   42, 7, 14, 1
                    0000  0000  00E44          .WORD   0, 0
                01  00  07  2C  00E48          .BYTE   44, 7, 0, 1
                    0000  0108  00E4C          .WORD   264, 0
                00  05  07  2E  00E50          .BYTE   46, 7, 5, 0
                    0004  0100  00E54          .WORD   256, 4
                00  0F  07  31  00E58          .BYTE   49, 7, 15, 0
                    0000  0000  00E5C          .WORD   0, 0
                01  02  07  34  00E60          .BYTE   52, 7, 2, 1
                    0000  0104  00E64          .WORD   260, 0
                01  06  07  35  00E68          .BYTE   53, 7, 6, 1
                    0006  01A0  00E6C          .WORD   416, 6
                01  06  07  36  00E70          .BYTE   54, 7, 6, 1
                    0006  01A6  00E74          .WORD   422, 6
                01  06  07  37  00E78          .BYTE   55, 7, 6, 1
                    0006  01AC  00E7C          .WORD   428, 6
                01  05  07  42  00E80          .BYTE   66, 7, 5, 1
                    0001  017D  00E84          .WORD   381, 1
                01  02  07  46  00E88          .BYTE   70, 7, 2, 1
                    0000  0134  00E8C          .WORD   308, 0
                01  06  07  48  00E90          .BYTE   72, 7, 6, 1
                    0006  01D2  00E94          .WORD   466, 6
                01  05  07  49  00E98          .BYTE   73, 7, 5, 1
                    0001  017E  00E9C          .WORD   382, 1
                01  02  07  4A  00EA0          .BYTE   74, 7, 2, 1
                    0000  0138  00EA4          .WORD   312, 0
                01  05  07  4F  00EA8          .BYTE   79, 7, 5, 1
                    0008  013C  00EAC          .WORD   316, 8
                01  05  07  50  00EB0          .BYTE   80, 7, 5, 1
                    0004  0144  00EB4          .WORD   324, 4
                01  04  07  51  00EB8          .BYTE   81, 7, 4, 1
                    000C  0148  00EBC          .WORD   328, 12
                01  05  07  52  00EC0          .BYTE   82, 7, 5, 1
                    0002  0172  00EC4          .WORD   370, 2
                01  05  07  53  00EC8          .BYTE   83, 7, 5, 1
                    0002  0174  00ECC          .WORD   372, 2
                01  05  07  54  00ED0          .BYTE   84, 7, 5, 1
                    0002  0176  00ED4          .WORD   374, 2
                          00  00ED8          .BYTE   0


                              0FFC 00000 QUI_DISPLAY_JOB:
                                         .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11  ; 3270
            58 00000000'  EF  9E 00002       MOVAB   VALUE_SEARCH_FLAGS, R8
            57 00000000G  EF  9E 00009       MOVAB   READ_RECORD, R7
    29      68            01  E0 00010       BBS     #1, VALUE_SEARCH_FLAGS, 1$    ; 3313
```

```
                                                7E  D4 00014          CLRL    -(SP)                                   ; 3319
                                          50    F128  C8  D0 00016          MOVL    MBX, R0                                 ; 3320
                                                28  A0  DD 0001B          PUSHL   40(R0)
                                                01  DD 0001E          PUSHL   #1                                      ; 3319
                                00000000G       EF      03  FB 00020          CALLS   #3, FIND_PROCESS_DATA
                                          48            50  E9 00027          BLBC    R0, 4$
                                                        5A  DD 0002A          PUSHL   SMQ_N                           ; 3326
                                          67            01  FB 0002C          CALLS   #1, READ_RECORD
                                          54            50  D0 0002F          MOVL    R0, SMQ
                                                        5B  DD 00032          PUSHL   SJH_N                           ; 3327
                                          67            01  FB 00034          CALLS   #1, READ_RECORD
                                          55            50  D0 00037          MOVL    R0, SJH
                                                  00E6  31  0003A          BRW     18$                             ; 3313
                                          59      04    AC  D0 0003D 1$:      MOVL    GQC, R9                         ; 3335
                                                  24    A9  D5 00041          TSTL    36(R9)
                                                        2C  13 00044          BEQL    4$
                                                  05    28  A9  D1 00046          CMPL    40(R9), #5                      ; 3336
                                                        26  13 0004A          BEQL    4$
                                                  5A    24  A9  D0 0004C          MOVL    36(R9), SMQ_N                   ; 3344
                                                        5A  DD 00050          PUSHL   SMQ_N
                                          67            01  FB 00052          CALLS   #1, READ_RECORD
                                          54            50  D0 00055          MOVL    R0, SMQ
                                                        5B  D4 00058          CLRL    SJH_N                           ; 3345
                                          56      2C    A9  9E 0005A          MOVAB   44(R9), R6                      ; 3348
                                                        66  D5 0005E 2$:       TSTL    (R6)
                                                        55  12 00060          BNEQ    11$
                                                  28    A9  D6 00062          INCL    40(R9)                          ; 3351
                                    03          28    A9  CF 00065          CASEL   40(R9), #1, #3                  ; 3352
                          0047      0031        0016        0010    0006A 3$:     .WORD   5$-3$,-
                                                                                    6$-3$,-
                                                                                    8$-3$,-
                                                                                    10$-3$
                                    50 00048040     8F  D0 00072 4$:       MOVL    #294976, R0                     ; 3358
                                                        04  00079          RET
                                          66      48    A4  D0 0007A 5$:      MOVL    72(SMQ), (R6)                   ; 3364
                                                        57  11 0007E          BRB     15$                             ; 3352
                                                0102    C4  B5 00080 6$:      TSTW    258(SMQ)                        ; 3370
                                                        51  13 00084          BEQL    15$
                                                        01  DD 00086          PUSHL   #1                              ; 3376
                                          67            01  FB 00088          CALLS   #1, READ_RECORD
                                          06      0C    A4  E9 0008B          BLBC    12(SMQ), 7$                     ; 3377
                                          66      54    A0  D0 0008F          MOVL    84(SQH), (R6)                   ; 3378
                                                        18  11 00093          BRB     9$
                                          66      5C    A0  D0 00095 7$:      MOVL    92(SQH), (R6)                   ; 3379
                                                        12  11 00099          BRB     9$                              ; 3380
                                                  34    A9  7C 0009B 8$:      CLRQ    52(R9)                          ; 3387
                                                0104    C4  B5 0009E          TSTW    268(SMQ)                        ; 3389
                                                        33  13 000A2          BEQL    15$
                                                        01  DD 000A4          PUSHL   #1                              ; 3395
                                          67            01  FB 000A6          CALLS   #1, READ_RECORD
                                          66      68    A0  D0 000A9          MOVL    104(SQH), (R6)                  ; 3396
                                                        01  DD 000AD 9$:      PUSHL   #1                              ; 3397
                                                        1F  11 000AF          BRB     14$
                                          66      78    A4  D0 000B1 10$:     MOVL    120(SMQ), (R6)                  ; 3404
                                                        20  11 000B5          BRB     15$                             ; 3348
                                                        5B  D5 000B7 11$:     TSTL    SJH_N                           ; 3412
                                                        0B  12 000B9          BNEQ    12$
```

```
                                 5B            66  D0 000BB          MOVL    (R6), SJH_N                             ;
                                               5B  DD 000BE          PUSHL   SJH_N                                   ;
                                 67            01  FB 000C0          CALLS   #1, READ_RECORD                         ;
                                 55            50  D0 000C3          MOVL    R0, SJH                                 ;
                      03      08 A9            07  E4 000C6 12$:     BBSC    #7, 8(R9), 13$                          ; 3413
                                 66            65  D0 000CB          MOVL    (SJH), (R6)                             ; 3414
                                               5B  DD 000CE 13$:     PUSHL   SJH_N                                   ; 3415
                          00000000G EF         01  FB 000D0 14$:     CALLS   #1, RELEASE_RECORD                      ;
                                               66  D5 000D7 15$:     TSTL    (R6)                                    ; 3419
                                               83  13 000D9          BEQL    2$                                      ;
                                 5B            66  D0 000DB          MOVL    (R6), SJH_N                             ; 3422
                                               5B  DD 000DE          PUSHL   SJH_N                                   ;
                                 67            01  FB 000E0          CALLS   #1, READ_RECORD                         ;
                                 55            50  D0 000E3          MOVL    R0, SJH                                 ;
                              30 A9            01  D0 000E6          MOVL    #1, 48(R9)                              ; 3423
                      50 30000000 8F      28    A9  78 000EA          ASHL    40(R9), #805306368, R0                  ; 3426
                                               07  18 000F3          BGEQ    16$                                     ;
                                 5A      0134  C5  D1 000F5          CMPL    308(SJH), SMQ_N                         ; 3427
                                               24  12 000FA          BNEQ    17$                                     ;
                                 24            68  E8 000FC 16$:     BLBS    VALUE_SEARCH_FLAGS, 18$                 ; 3431
                                 50    F128    C8  D0 000FF          MOVL    MBX, R0                                 ; 3432
                  10  A0      0148 C5                  0C  29 00104  CMPC3   #12, 328(SJH), 16(R0)                   ;
                                               16  13 0010B          BEQL    18$                                     ;
                                 02      28    A9  D1 0010D          CMPL    40(R9), #2                              ; 3435
                                               0D  12 00111          BNEQ    17$                                     ;
                                       38      A9  D6 00113          INCL    56(R9)                                  ; 3438
                                 06    0C      A4  E8 00116          BLBS    12(SMQ), 17$                            ; 3439
                              34 A9    0100    C5  C0 0011A          ADDL2   256(SJH), 52(R9)                        ; 3440
                                          FF3B 31  00120 17$:        BRW     2$                                      ; 3435
                                               55  DD 00123 18$:     PUSHL   SJH                                     ; 3529
                                       0810    8F  BB 00125          PUSHR   #^M<R4,R11>                             ;
                                       0430    8F  BB 00129          PUSHR   #^M<R4,R5,R10>                          ; 3528
                          00000000G EF                 02  FB 0012D  CALLS   #2, CHECK_R_ACCESS                      ;
                                               50  DD 00134          PUSHL   R0                                      ;
                                       FDB5    CF  9F 00136          PUSHAB  P.AAD                                   ; 3527
                                         04    AC  DD 0013A          PUSHL   GQC                                     ; 3458
                                  F562   CF          07  FB 0013D    CALLS   #7, RETURN_RESULT                       ;
                                                     04  00142      RET                                             ; 3530

; Routine Size:  323 bytes,    Routine Base:  CODE + 0ED9
```

```
;  2508     3531  1 ROUTINE QUI_DISPLAY_QUEUE(GQC)=
;  2509     3532  1
;  2510     3533  1 !++
;  2511     3534  1 !
;  2512     3535  1 ! FUNCTIONAL DESCRIPTION:
;  2513     3536  1 !       This routine processes the QUI$_DISPLAY_QUEUE request.
;  2514     3537  1 !
;  2515     3538  1 ! INPUT PARAMETERS:
;  2516     3539  1 !       GQC             - Pointer to $GETQUI context block.
;  2517     3540  1 !
;  2518     3541  1 ! IMPLICIT INPUTS:
;  2519     3542  1 !       MBX             - Pointer to buffered mailbox message.
;  2520     3543  1 !
;  2521     3544  1 ! OUTPUT PARAMETERS:
;  2522     3545  1 !       NONE
;  2523     3546  1 !
;  2524     3547  1 ! IMPLICIT OUTPUTS:
;  2525     3548  1 !       NONE
;  2526     3549  1 !
;  2527     3550  1 ! ROUTINE VALUE:
;  2528     3551  1 !       Completion status to be returned to requestor.
;  2529     3552  1 !
;  2530     3553  1 ! SIDE EFFECTS:
;  2531     3554  1 !       NONE
;  2532     3555  1 !
;  2533     3556  1 !--
;  2534     3557  1
;  2535     3558  2 BEGIN
;  2536     3559  2 MAP
;  2537     3560  2         GQC:            REF BBLOCK;     ! Pointer to $GETQUI context block
;  2538     3561  2 LOCAL
;  2539     3562  2         SMQ_N,                          ! Record number of SMQ
;  2540     3563  2         SMQ:            REF BBLOCK;     ! Pointer to SMQ
;  2541     3564  2 LITERAL
;  2542     3565  2         K_SMQ=          K_REC_1;
;  2543     3566  2 LABEL
;  2544     3567  2         FIND_SELECTED;
;  2545     3568  2
;  2546     3569  2
;  2547     3570  2 ! If the search name is omitted, this request returns information about the
;  2548     3571  2 ! current batch job.
;  2549     3572  2 !
;  2550     3573  2 IF NOT .ITEM_PRESENT[QUI$_SEARCH_NAME]
;  2551     3574  2 THEN
;  2552     3575  3     BEGIN
;  2553     3576  3     GQC[GQC_SQX_WILD] = FALSE;
;  2554     3577  3
;  2555     3578  3
;  2556     3579  3     ! Locate the data for this job.
;  2557     3580  3     !
;  2558     3581  3     IF NOT FIND_PROCESS_DATA(
;  2559     3582  3         PDE_K_BATCH, .MBX[ACM$L_PID], FALSE;
;  2560     3583  3         , SMQ_N)
;  2561     3584  3     THEN
;  2562     3585  3         RETURN JBC$_NOSUCHQUE;
;  2563     3586  3
;  2564     3587  3
```

```
;2565     3588  3      SMQ = READ_RECORD(.SMQ_N);
;2566     3589  3      END
;2567     3590  2  ELSE
;2568     3591  3      BEGIN
;2569     3592  3
;2570     3593  3      ! Set the queue wildcard bit.
;2571     3594  3      !
;2572     3595  3      GQC[GQC_SQX_WILD] = WILD_SEARCH_NAME();
;2574     3596  3
;2574     3597  3
;2575     3598  3      ! If this is the first call, advance to the first queue index record.
;2576     3599  3      !
;2577     3600  3      IF .GQC[GQC_SQX_N] EQL SQH$K_RECNO
;2578     3601  3      THEN
;2579     3602  4          BEGIN
;2580     3603  4          LOCAL
;2581     3604  4              SQH:                REF BBLOCK;     ! Pointer to SQH
;2582     3605  4
;2583     3606  4          SQH = READ_RECORD(SQH$K_RECNO);
;2584     3607  4          GQC[GQC_SQX_N] = .SQH[SQH$L_QUEUE_INDEX_LIST];
;2585     3608  4          GQC[GQC_SQE_N] = $BYTEOFFSET(SYM$T_DATA) - SQX$S_SQX;
;2586     3609  4          RELEASE_RECORD(SQH$K_RECNO);
;2587     3610  3          END;
;2588     3611  3
;2589     3612  3
;2590     3613  4      FIND_SELECTED:  BEGIN
;2591     3614  4
;2592     3615  4
;2593     3616  4      ! Loop over queue index records.
;2594     3617  4      !
;2595     3618  4      WHILE TRUE DO
;2596     3619  5          BEGIN
;2597     3620  5          LOCAL
;2598     3621  5              SQX_N,                      ! Record number of SQX
;2599     3622  5              SQX:        REF BBLOCK,     ! Pointer to SQX
;2600     3623  5              SQE:        REF BBLOCK;     ! Pointer to SQX entry
;2601     3624  5
;2602     3625  5
;2603     3626  5          ! No more records -- return failure.
;2604     3627  5          !
;2605     3628  5          IF .GQC[GQC_SQX_N] EQL 0
;2606     3629  5          THEN
;2607     3630  6              BEGIN
;2608     3631  6              GQC[GQC_SQX_WILD] = FALSE;
;2609     3632  6              GQC[GQC_SMQ_N] = 0;
;2610     3633  6              RETURN JBC$_NOSUCHQUE;
;2611     3634  5              END;
;2612     3635  5
;2613     3636  5
;2614     3637  5          ! Read the queue index record.
;2615     3638  5          !
;2616     3639  5          SQX = READ_RECORD(SQX_N = .GQC[GQC_SQX_N]);
;2617     3640  5
;2618     3641  5
;2619     3642  5          ! Loop over queue entries.
;2620     3643  5          !
;2621     3644  5          WHILE TRUE DO
```

```
; 2622     3645  6          BEGIN
; 2623     3646  6
; 2624     3647  6          ! Advance to next entry, and ensure that it is valid.
; 2625     3648  6          !
; 2626     3649  6          IF TESTBITCC(GQC[GQC_SQX_NO_ADV])
; 2627     3650  6              THEN GQC[GQC_SQE_N] = .GQC[GQC_SQE_N] + SQX$S_SQX;
; 2628     3651  6          IF .GQC[GQC_SQE_N] GEQU $BYTEOFFSET(SYM$T_DATA) + SQX$S_SQX * SQX$K_ENTRIES
; 2629     3652  6              THEN EXITLOOP;
; 2630     3653  6          SQE = .SQX + .GQC[GQC_SQE_N];
; 2631     3654  6          IF CH$RCHAR(SQE[SQX$T_NAME]) EQL 0 THEN EXITLOOP;
; 2632     3655  6
; 2633     3656  6
; 2634     3657  6          ! Match this entry with the selector.
; 2635     3658  6          !
; 2636     3659  6          IF
; 2637     3660  6              FMG$MATCH_NAME(
; 2638     3661  6                  CH$RCHAR(SQE[SQX$T_NAME]),
; 2639     3662  6                  SQE[SQX$T_NAME] + 1,
; 2640     3663  6                  .VALUE_SEARCH_NAME[SDSC_W_LENGTH],
; 2641     3664  6                  .VALUE_SEARCH_NAME[SDSC_A_POINTER])
; 2642     3665  6          AND
; 2643     3666  7              BEGIN
; 2644     3667  7              IF .ITEM_PRESENT[QUI$_SEARCH_FLAGS]
; 2645     3668  7              THEN
; 2646     3669  7                  IF NOT .VALUE_SEARCH_FLAGS[QUI$V_SEARCH_BATCH]
; 2647     3670  7                  AND NOT .VALUE_SEARCH_FLAGS[QUI$V_SEARCH_SYMBIONT]
; 2648     3671  7                  THEN
; 2649     3672  7                      TRUE
; 2650     3673  7                  ELSE
; 2651     3674  8                      (.VALUE_SEARCH_FLAGS[QUI$V_SEARCH_BATCH]
; 2652     3675  7                          AND .SQE[SQX$V_BATCH]) OR
; 2653     3676  8                      (.VALUE_SEARCH_FLAGS[QUI$V_SEARCH_SYMBIONT]
; 2654     3677  8                          AND NOT .SQE[SQX$V_BATCH])
; 2655     3678  7              ELSE
; 2656     3679  7                  TRUE
; 2657     3680  7              END
; 2658     368'  6              THEN
; 2659     368,  7                  BEGIN
; 2660     3683  7                  GQC[GQC_SMQ_N] = SMQ_N = .SQE[SQX$L_QUEUE_LINK];
; 2661     3684  7                  GQC[GQC_SJH_Q] = GQC_K_NONE;
; 2662     3685  7                  GQC[GQC_SJH_N] = 0;
; 2663     3686  7                  SMQ = READ_RECORD(.SMQ_N);
; 2664     3687  7                  LEAVE FIND_SELECTED;
; 2665     3688  6                  END;
; 2666     3689  5              END;
; 2667     3690  5
; 2668     3691  5
; 2669     3692  5          ! Advance to next queue index record.
; 2670     3693  5          !
; 2671     3694  5          GQC[GQC_SQX_N] = .SQX[SYM$L_LINK];
; 2672     3695  5          GQC[GQC_SQE_N] = $BYTEOFFSET(SYM$T_DATA) - SQX$S_SQX;
; 2673     3696  5          RELEASE_RECORD(.SQX_N);
; 2674     3697  4          END;
; 2675     3698  4
; 2676     3699  4
; 2677     3700  3      END; ! of block FIND_SELECTED
; 2678     3701  3
```

```
;  2679          3702  3
;  2680          3703  2      END;
;  2681          3704  2
;  2682          3705  2
;  2683          3706  2  ! Return information about the selected queue.
;  2684          3707  2  !
;  2685          3708  2  RETURN_RESULT(
;  2686          3709  2      .GQC,
;  2687        P 3710  2      GENERATE_TABLE(
;  2688        P 3711  2          QUI$_ASSIGNED_QUEUE_NAME,
;  2689        P 3712  2                  K_SMQ,  K_COPY_QUEUE_NAME,      TRUE,   $BYTEOFFSET(SMQ$L_ASSIGNED_QUEUE_LINK), 0,
;  2690        P 3713  2          QUI$_BASE_PRIORITY,
;  2691        P 3714  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$B_BASE_PRIORITY),       1,
;  2692        P 3715  2          QUI$_CHARACTERISTICS,
;  2693        P 3716  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$T_CHARACTERISTICS),     SMQ$S_CHARAC
;  2694        P 3717  2          QUI$_CPU_DEFAULT,
;  2695        P 3718  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$L_CPU_DEFAULT),         4,
;  2696        P 3719  2          QUI$_CPU_LIMIT,
;  2697        P 3720  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$L_CPU_MAXIMUM),         4,
;  2698        P 3721  2          QUI$_DEVICE_NAME,
;  2699        P 3722  2                  K_SMQ,  K_COPY_ASCIC,           TRUE,   $BYTEOFFSET(SMQ$T_DEVICE_NAME),         0,
;  2700        P 3723  2          QUI$_FORM_NAME,
;  2701        P 3724  2                  K_SMQ,  K_COPY_FORM_NAME,       TRUE,   $BYTEOFFSET(SMQ$L_FORM_LINK),           0,
;  2702        P 3725  2          QUI$_GENERIC_TARGET,
;  2703        P 3726  2                  K_SMQ,  K_GENERIC_TARGET,       TRUE,   $BYTEOFFSET(SMQ$L_GENERIC_TARGET),      0,
;  2704        P 3727  2          QUI$_JOB_LIMIT,
;  2705        P 3728  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$B_JOB_LIMIT),           1,
;  2706        P 3729  2          QUI$_JOB_RESET_MODULES,
;  2707        P 3730  2                  K_SMQ,  K_COPY_VARIABLE,        TRUE,   $BYTEOFFSET(SMQ$T_JOB_RESET_MODULES),   SMQ$S_JOB_RE
;  2708        P 3731  2          QUI$_JOB_SIZE_MAXIMUM,
;  2709        P 3732  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$L_JOB_SIZE_MAXIMUM),    4,
;  2710        P 3733  2          QUI$_JOB_SIZE_MINIMUM,
;  2711        P 3734  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$L_JOB_SIZE_MINIMUM),    4,
;  2712        P 3735  2          QUI$_LIBRARY_SPECIFICATION,
;  2713        P 3736  2                  K_SMQ,  K_COPY_ASCIC,           TRUE,   $BYTEOFFSET(SMQ$T_LIBRARY),             0,
;  2714        P 3737  2          QUI$_OWNER_UIC,
;  2715        P 3738  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$L_OWNER_UIC),           4,
;  2716        P 3739  2          QUI$_PROCESSOR,
;  2717        P 3740  2                  K_SMQ,  K_COPY_ASCIC,           TRUE,   $BYTEOFFSET(SMQ$T_PROCESSOR),           0,
;  2718        P 3741  2          QUI$_PROTECTION,
;  2719        P 3742  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$W_PROTECTION),          2,
;  2720        P 3743  2          QUI$_QUEUE_FLAGS,
;  2721        P 3744  2                  K_SMQ,  K_QUEUE_FLAGS,          TRUE,   0,                                      0,
;  2722        P 3745  2          QUI$_QUEUE_NAME,
;  2723        P 3746  2                  K_SMQ,  K_COPY_ASCIC,           FALSE,  $BYTEOFFSET(SMQ$T_NAME),                0,
;  2724        P 3747  2          QUI$_QUEUE_STATUS,
;  2725        P 3748  2                  K_SMQ,  K_QUEUE_STATUS,         TRUE,   0,                                      0,
;  2726        P 3749  2          QUI$_SCSNODE_NAME,
;  2727        P 3750  2                  K_SMQ,  K_COPY_TRIMMED,         TRUE,   $BYTEOFFSET(SMQ$T_SYSID),               SMQ$S_SYSID,
;  2728        P 3751  2          QUI$_WSDEFAULT,
;  2729        P 3752  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$W_WSDEFAULT),           2,
;  2730        P 3753  2          QUI$_WSEXTENT,
;  2731        P 3754  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$W_WSEXTENT),            2,
;  2732        P 3755  2          QUI$_WSQUOTA,
;  2733          3756  2                  K_SMQ,  K_COPY_VALUE,           TRUE,   $BYTEOFFSET(SMQ$W_WSQUOTA),             2),
;  2734          3757  2      TRUE,
;  2735          3758  2      .SMQ_N, .SMQ)
```

```
; 2736        3759  1 END;

                                01  02  05  03  0101C P.AAE:  .BYTE   3, 5, 2, 1                                  ;
                                    0000  002C  01020          .WORD   44, 0
                                01  05  05  04  01024          .BYTE   4, 5, 5, 1
                                    0001  0114  01028          .WORD   276, 1
                                01  05  05  07  0102C          .BYTE   7, 5, 5, 1
                                    0010  0030  01030          .WORD   48, 16
                                01  05  05  0C  01034          .BYTE   12, 5, 5, 1
                                    0004  0040  01038          .WORD   64, 4
                                01  05  05  0D  0103C          .BYTE   13, 5, 5, 1
                                    0004  0044  01040          .WORD   68, 4
                                01  00  05  0E  01044          .BYTE   14, 5, 0, 1
                                    0000  0050  01048          .WORD   80, 0
                                01  01  05  1F  0104C          .BYTE   31, 5, 1, 1
                                    0000  0070  01050          .WORD   112, 0
                                01  0B  05  24  01054          .BYTE   36, 5, 11, 1
                                    0000  0074  01058          .WORD   116, 0
                                01  05  05  2B  0105C          .BYTE   43, 5, 5, 1
                                    0001  0116  01060          .WORD   278, 1
                                01  06  05  2D  01064          .BYTE   45, 5, 6, 1
                                    0006  0118  01068          .WORD   280, 6
                                01  05  05  2F  0106C          .BYTE   47, 5, 5, 1
                                    0004  0080  01070          .WORD   128, 4
                                01  05  05  30  01074          .BYTE   48, 5, 5, 1
                                    0004  0084  01078          .WORD   132, 4
                                0'  00  05  33  0107C          .BYTE   51, 5, 0, 1
                                    0000  0088  01080          .WORD   136, 0
                                01  05  05  38  01084          .BYTE   56, 5, 5, 1
                                    0004  00D0  01088          .WORD   208, 4
                                01  00  05  43  0108C          .BYTE   67, 5, 0, 1
                                    0000  00D4  01090          .WORD   212, 0
                                01  05  05  44  01094          .BYTE   68, 5, 5, 1
                                    0002  0104  01098          .WORD   260, 2
                                01  10  05  45  0109C          .BYTE   69, 5, 16, 1
                                    0000  0000  010A0          .WORD   0, 0
                                00  00  05  46  010A4          .BYTE   70, 5, 0, 0
                                    0000  00B0  010A8          .WORD   176, 0
                                01  11  05  47  010AC          .BYTE   71, 5, 17, 1
                                    0000  0000  010B0          .WORD   0, 0
                                01  04  05  4B  010B4          .BYTE   75, 5, 4, 1
                                    0006  0106  010B8          .WORD   262, 6
                                01  05  05  52  010BC          .BYTE   82, 5, 5, 1
                                    0002  010E  010C0          .WORD   270, 2
                                01  05  05  53  010C4          .BYTE   83, 5, 5, 1
                                    0002  0110  010C8          .WORD   272, 2
                                01  05  05  54  010CC          .BYTE   84, 5, 5, 1
                                    0002  0112  010D0          .WORD   274, 2
                                          00  010D4          .BYTE   0                                           ;

                          0FFC 00000 QUI_DISPLAY_QUEUE:
                                     .WORD   Save R2,R3,R4,R5,R6,R7,R8,R9,R10,R11        ; 3531
5E                  08  C2 00002    SUBL2   #8, SP                                      ;
```

```
                                56        04     AC  D0 00005          MOVL    GQC, R6                                 ; 3576
                      1F 00000000'  EF             05  E0 00009          BBS     #5, ITEM_PRESENT+9, 1$                  ; 3573
                              08    A6             04  8A 00011          BICB2   #4, 8(R6)                               ; 3576
                                                   7E  D4 00015          CLRL    -(SP)                                   ; 3581
                                50 00000000'       EF  D0 00017          MOVL    MBX, R0                                 ; 3582
                                          28       A0  DD 0001E          PUSHL   40(R0)
                                                   01  DD 00021          PUSHL   #1                                      ; 3581
                           00000000G    EF             03  FB 00023          CALLS   #3, FIND_PROCESS_DATA
                                44                     50  E9 0002A          BLBC    R0, 4$
                                                       00CB 31 0002D          BRW     11$
                                F3DF    CF             00  FB 00030 1$:      CALLS   #0, WILD_SEARCH_NAME                    ; 3595
    08  A6                        01                   02  F0 00035          INSV    R0, #2, #1, 8(R6)
                                58        1C     A6  9E 0003B          MOVAB   28(R6), R11                             ; 3600
                                01                   6B  D1 0003F          CMPL    (R11), #1
                                                     1A  12 00042          BNEQ    2$
                                                     01  DD 00044          PUSHL   #1                                      ; 3606
                           00000000G    EF             01  FB 00046          CALLS   #1, READ_RECORD
                                6B        64     A0  D0 0004D          MOVL    100(SQH), (R11)                         ; 3607
                                      20  A6             1C  CE 00051          MNEGL   #28, 32(R6)                             ; 3608
                                                     01  DD 00055          PUSHL   #1                                      ; 3609
                           00000000G    EF             01  FB 00057          CALLS   #1, RELEASE_RECORD
                                57        20     A6  9E 0005E 2$:      MOVAB   32(R6), R7                              ; 3651
                                57        20     A6  9E 00062          MOVAB   32(R6), R7                              ; 3695
                                                     6B  D5 00066 3$:      TSTL    (R11)                                   ; 3628
                                                     0F  12 00068          BNEQ    5$
                                      08  A6             04  8A 0006A          BICB2   #4, 8(R6)                               ; 3631
                                          24     A6      D4 0006E          CLRL    36(R6)                                  ; 3632
                                50 00048038        8F  D0 00071 4$:      MOVL    #294968, R0                             ; 3633
                                                       04 00078          RET
                                58                   6B  D0 00079 5$:      MOVL    (R11), SQX_N                            ; 3639
                                                     58  DD 0007C          PUSHL   SQX_N
                           00000000G    EF             01  FB 0007E          CALLS   #1, READ_RECORD
                                6E                     50  D0 00085          MOVL    R0, SQX
                      04        08    A6             06  E4 00088 6$:      BBSC    #6, 8(R6), 7$                           ; 3649
                                20    A6             28  C0 0008D          ADDL2   #40, 32(R6)                             ; 3650
                           000001EC   8F             67  D1 00091 7$:      CMPL    (R7), #492                              ; 3651
                                                     70  1E 00098          BGEQU   12$
                59                 6E             67  C1 0009A          ADDL3   (R7), SQX, SQE                          ; 3653
                                                     69  95 0009E          TSTB    (SQE)                                   ; 3654
                                                     68  13 000A0          BEQL    12$
                                53        01     A9  9E 000A2          MOVAB   1(SQE), R3                              ; 3662
                                55 00000000'       EF  D0 000A6          MOVL    VALUE_SEARCH_NAME+2, R5                 ; 3661
                                54 00000000'       EF  3C 000AD          MOVZWL  VALUE_SEARCH_NAME, R4
                                52                     69  9A 000B4          MOVZBL  (SQE), R2
                                          00000000G    00  16 000B7          JSB     FMG$MATCH_NAME
                                C8                     50  E9 000BD          BLBC    R0, 6$
                      28 00000000'  EF             04  E1 000C0          BBC     #4, ITEM_PRESENT+9, 10$                 ; 3667
                      10 00000000'  EF             02  E0 000C8          BBS     #2, VALUE_SEARCH_FLAGS, 8$              ; 3669
                      18 00000000'  EF             03  E1 000D0          BBC     #3, VALUE_SEARCH_FLAGS, 10$             ; 3670
                      04 00000000'  EF             02  E1 000D8          BBC     #2, VALUE_SEARCH_FLAGS, 9$              ; 3674
                                0C        20     A9  E8 000E0 8$:      BLBS    32(SQE), 10$                            ; 3675
                      9C 00000000'  EF             03  E1 000E4 9$:      BBC     #3, VALUE_SEARCH_FLAGS, 6$              ; 3676
                                98        20     A9  E8 000EC          BLBS    32(SQE), 6$                             ; 3677
                                5A        24     A9  D0 000F0 10$:     MOVL    36(SQE), SMQ_N                          ; 3683
                                      24  A6             5A  D0 000F4          MOVL    SMQ_N, 36(R6)
                                          28     A6      7C 000F8          CLRQ    40(R6)                                  ; 3684
                                                     5A  DD 000FB 11$:     PUSHL   SMQ_N                                   ; 3686
```

```
                00000000G  EF              01  FB 000FD          CALLS   #1, READ_RECORD                          ;
                      04   AE              50  D0 00104          MOVL    R0, SMQ                                 ;
                                          13  11 00108          BRB     13$                                     ; 3687
                           6B        00     BE  D0 0010A 12$:     MOVL    @SQX, (R11)                             ; 3694
                           67              1C  CE 0010E          MNEGL   #28, (R7)                               ; 3695
                                           58  DD 00111          PUSHL   SQX_N                                   ; 3696
                00000000G  EF              01  FB 00113          CALLS   #1, RELEASE_RECORD                      ;
                                        FF49  31 00116          BRW     3$                                      ; 3618
                                      04   AE  DD 00119 13$:     PUSHL   SMQ                                     ; 3758
                                           5A  DD 0011C          PUSHL   SMQ_N                                   ;
                                           01  DD 0011E          PUSHL   #1                                      ; 3708
                                     FE1F  CF  9F 00120          PUSHAB  P.AAE                                   ; 3756
                                           56  DD 00124          PUSHL   R6                                      ; 3709
                          F379  CF         05  FB 00126          CALLS   #5, RETURN_RESULT                       ;
                                               04 0012B          RET                                             ; 3759

; Routine Size:  304 bytes,    Routine Base:  CODE + 10D5
```

```
;  2738     3760  1 ROUTINE QUI_RESERVED_FUNC_1=
;  2739     3761  1
;  2740     3762  1 !++
;  2741     3763  1 !
;  2742     3764  1 ! FUNCTIONAL DESCRIPTION:
;  2743     3765  1 !       This routine processes the QUI$_RESERVED_FUNC_1 request.
;  2744     3766  1 !
;  2745     3767  1 ! INPUT PARAMETERS:
;  2746     3768  1 !       NONE
;  2747     3769  1 !
;  2748     3770  1 ! IMPLICIT INPUTS:
;  2749     3771  1 !       NONE
;  2750     3772  1 !
;  2751     3773  1 ! OUTPUT PARAMETERS:
;  2752     3774  1 !       NONE
;  2753     3775  1 !
;  2754     3776  1 ! IMPLICIT OUTPUTS:
;  2755     3777  1 !       NONE
;  2756     3778  1 !
;  2757     3779  1 ! ROUTINE VALUE:
;  2758     3780  1 !       Completion status to be returned to requestor.
;  2759     3781  1 !
;  2760     3782  1 ! SIDE EFFECTS:
;  2761     3783  1 !       NONE
;  2762     3784  1 !
;  2763     3785  1 !--
;  2764     3786  1
;  2765     3787  2 BEGIN
;  2766     3788  2
;  2767     3789  2
;  2768     3790  2 ! Ensure that the requestor has OPER privilege.
;  2769     3791  2 !
;  2770     3792  2 IF NOT .BBLOCK[MBX[ACM$Q_PRVMSK], PRV$V_OPER]
;  2771     3793  2 THEN
;  2772     3794  2     RETURN JBC$_NOOPER;
;  2773     3795  2
;  2774     3796  2
;  2775     3797  2 SS$_NORMAL
;  2776     3798  1 END;


                                        0000 00000 QUI_RESERVED_FUNC_1:
                                                   .WORD   Save nothing                    ; 3760
                        50 00000000'    EF  D0 00002       MOVL    MBX, R0              ; 3792
                08      06      A0      02  E0 00009       BBS     #2, 6(R0), 1$        ;
                        50 00042894     8F  D0 0000E       MOVL    #272532, R0          ; 3794
                                            04 00015       RET                          ;
                        50              01  D0 00016 1$:    MOVL    #1, R0               ; 3798
                                            04 00019       RET                          ;

; Routine Size:  26 bytes,    Routine Base:  CODE + 1205
```

```
;  2778     3799  1 ROUTINE QUI_RESERVED_FUNC_2=
;  2779     3800  1
;  2780     3801  1 !++
;  2781     3802  1 !
;  2782     3803  1 ! FUNCTIONAL DESCRIPTION:
;  2783     3804  1 !       This routine processes the QUI$_RESERVED_FUNC_2 request.
;  2784     3805  1 !
;  2785     3806  1 ! INPUT PARAMETERS:
;  2786     3807  1 !       NONE
;  2787     3808  1 !
;  2788     3809  1 ! IMPLICIT INPUTS:
;  2789     3810  1 !       NONE
;  2790     3811  1 !
;  2791     3812  1 ! OUTPUT PARAMETERS:
;  2792     3813  1 !       NONE
;  2793     3814  1 !
;  2794     3815  1 ! IMPLICIT OUTPUTS:
;  2795     3816  1 !       NONE
;  2796     3817  1 !
;  2797     3818  1 ! ROUTINE VALUE:
;  2798     3819  1 !       Completion status to be returned to requestor.
;  2799     3820  1 !
;  2800     3821  1 ! SIDE EFFECTS:
;  2801     3822  1 !       NONE
;  2802     3823  1 !
;  2803     3824  1 !--
;  2804     3825  1
;  2805     3826  2 BEGIN
;  2806     3827  2
;  2807     3828  2
;  2808     3829  2 ! Ensure that the requestor has OPER privilege.
;  2809     3830  2 !
;  2810     3831  2 IF NOT .BBLOCK[MBX[ACM$Q_PRVMSK], PRV$V_OPER]
;  2811     3832  2 THEN
;  2812     3833  2     RETURN JBC$_NOOPER;
;  2813     3834  2
;  2814     3835  2
;  2815     3836  2 SS$_NORMAL
;  2816     3837  1 END;


                                        0000 00000 QUI_RESERVED_FUNC_2:
                                                   .WORD   Save nothing                    ; 3799
                        50 00000000'    EF  DO 00002       MOVL    MBX, R0              ; 3831
                08      06      A0      02  E0 00009       BBS     #2, 6(R0), 1$        ;
                        50 00042894     8F  DO 0000E       MOVL    #272532, R0          ; 3833
                                            04 00015       RET                          ;
                        50              01  DO 00016 1$:    MOVL    #1, R0               ; 3837
                                            04 00019       RET                          ;

; Routine Size:  26 bytes,    Routine Base:  CODE + 121F
```

```
;  2818     3838  1 ROUTINE QUI_TRANSLATE_QUEUE(GQC)=
;  2819     3839  1
;  2820     3840  1 !++
;  2821     3841  1 !
;  2822     3842  1 ! FUNCTIONAL DESCRIPTION:
;  2823     3843  1 !       This routine processes the QUI$_TRANSLATE_QUEUE request.
;  2824     3844  1 !
;  2825     3845  1 ! INPUT PARAMETERS:
;  2826     3846  1 !       GQC             - Pointer to $GETQUI context block.
;  2827     3847  1 !
;  2828     3848  1 ! IMPLICIT INPUTS:
;  2829     3849  1 !       MBX             - Pointer to buffered mailbox message.
;  2830     3850  1 !
;  2831     3851  1 ! OUTPUT PARAMETERS:
;  2832     3852  1 !       NONE
;  2833     3853  1 !
;  2834     3854  1 ! IMPLICIT OUTPUTS:
;  2835     3855  1 !       NONE
;  2836     3856  1 !
;  2837     3857  1 ! ROUTINE VALUE:
;  2838     3858  1 !       Completion status to be returned to requestor.
;  2839     3859  1 !
;  2840     3860  1 ! SIDE EFFECTS:
;  2841     3861  1 !       NONE
;  2842     3862  1 !
;  2843     3863  1 !--
;  2844     3864  1
;  2845     3865  2 BEGIN
;  2846     3866  2 MAP
;  2847     3867  2         GQC:            REF BBLOCK;     ! Pointer to $GETQUI context block
;  2848     3868  2 LOCAL
;  2849     3869  2         SDSC:           BBLOCK[SDSC_K_LENGTH];  ! Short descriptor for queue name
;  2850     3870  2 LITERAL
;  2851     3871  2         K_SDSC=         K_REC_1;
;  2852     3872  2
;  2853     3873  2
;  2854     3874  2 ! Ensure that a search name was specified.
;  2855     3875  2 !
;  2856     3876  2 IF NOT .ITEM_PRESENT[QUI$_SEARCH_NAME]
;  2857     3877  2 THEN
;  2858     3878  2     RETURN JBC$_MISREQPAR;
;  2859     3879  2
;  2860     3880  2
;  2861     3881  2 ! Validate the search name.
;  2862     3882  2 !
;  2863     3883  2 IF NOT VALIDATE_OBJECT_NAME(
;  2864     3884  2     .VALUE_SEARCH_NAME[SDSC_W_LENGTH], .VALUE_SEARCH_NAME[SDSC_A_POINTER],
;  2865     3885  2     SDSC)
;  2866     3886  2 THEN
;  2867     3887  2     RETURN JBC$_INVQUENAM;
;  2868     3888  2
;  2869     3889  2
;  2870     3890  2 ! Return information about the selected queue.
;  2871     3891  2 !
;  2872     3892  2 RETURN_RESULT(
;  2873     3893  2     .GQC,
;  2874   P 3894  2     GENERATE_TABLE(
```

```
;  2875        P 3895  2          QUI$_QUEUE_NAME,
;  2876          3896  2                  K_SDSC, K_COPY_SDSC,          FALSE,  0,                                  0),
;  2877          3897  2      TRUE,
;  2878          3898  2      0, SDSC)
;  2879          3899  1 END;


                                        01239          .BLKB   3
                                00  03  05  46  0123C P.AAF:  .BYTE   70, 5, 3, 0                                    ;
                                    0000  0000  01240          .WORD   0, 0                                            ;
                                          00  01244          .BYTE   0                                               ;


                                              0004 00000 QUI_TRANSLATE_QUEUE:
                                                         .WORD   Save R2                                              ; 3838
                                    52 00000000'  EF  9E 00002          MOVAB   ITEM_PRESENT+9, R2                    ;
                                    5E            08  C2 00009          SUBL2   #8, SP                                ;
                              08    62            05  E0 0000C          BBS     #5, ITEM_PRESENT+9, 1$                ; 3876
                                    50 00048108   8F  D0 00010          MOVL    #295176, R0                           ; 3878
                                                  04  00017          RET                                           ;
                                                  5E  DD 00018 1$:     PUSHL   SP                                    ; 3883
                                          031B    C2  DD 0001A         PUSHL   VALUE_SEARCH_NAME+2                   ; 3884
                                    7E    0319    C2  3C 0001E         MOVZWL  VALUE_SEARCH_NAME, -(SP)              ;
                         00000000G  EF            03  FB 00023         CALLS   #3, VALIDATE_OBJECT_NAME              ;
                                    08            50  E8 0002A         BLBS    R0, 2$                                ;
                                    50 00048018   8F  D0 0002D         MOVL    #294936, R0                           ; 3887
                                                  04  00034         RET                                           ;
                                                  5E  DD 00035 2$:     PUSHL   SP                                    ; 3892
                                    7E            01  7D 00037         MOVQ    #1, -(SP)                             ;
                                          BA      AF  9F 0003A         PUSHAB  P.AAF                                 ; 3896
                                          04      AC  DD 0003D         PUSHL   GQC                                   ; 3893
                                F2F3      CF            05  FB 00040         CALLS   #5, RETURN_RESULT                     ;
                                                        04  00045         RET                                           ; 3899

; Routine Size:  70 bytes,    Routine Base:  CODE + 1245
```

```
;2881   3900  1 ROUTINE PROCESS_ONE_OPTION(CODE,VALUE_SIZE,VALUE_ADDRESS)=
;2882   3901  1
;2883   3902  1 !++
;2884   3903  1 !
;2885   3904  1 ! FUNCTIONAL DESCRIPTION:
;2886   3905  1 !       This routine validates and stores one parameter value for the $GETQUI
;2887   3906  1 !       service.
;2888   3907  1 !
;2889   3908  1 ! INPUT PARAMETERS:
;2890   3909  1 !       CODE            - $GETQUI item code.
;2891   3910  1 !       VALUE_SIZE      - Length of item value.
;2892   3911  1 !       VALUE_ADDRESS   - Address of item value.
;2893   3912  1 !
;2894   3913  1 ! IMPLICIT INPUTS:
;2895   3914  1 !       MBX             - Pointer to buffered mailbox message.
;2896   3915  1 !
;2897   3916  1 ! OUTPUT PARAMETERS:
;2898   3917  1 !       NONE
;2899   3918  1 !
;2900   3919  1 ! IMPLICIT OUTPUTS:
;2901   3920  1 !       Values in the item list in internal storage.
;2902   3921  1 !
;2903   3922  1 ! ROUTINE VALUE:
;2904   3923  1 !       Completion status.
;2905   3924  1 !
;2906   3925  1 ! SIDE EFFECTS:
;2907   3926  1 !       NONE
;2908   3927  1 !
;2909   3928  1 !--
;2910   3929  1
;2911   3930  2 BEGIN
;2912   3931  2 MAP
;2913   3932  2         VALUE_ADDRESS:  REF BBLOCK;     ! Pointer to parameter value
;2914   3933  2
;2915   3934  2
;2916   3935  2 OWN
;2917   3936  2         REQUIRED_VALUE_SIZE:
;2918   3937  2             VECTOR[MAX_GETQUI_ITEM+1,WORD,SIGNED] PSECT(CODE) PRESET(
;2919   3938  2                 [QUI$_RESERVED_INPUT_1]=        4,
;2920   3939  2                 [QUI$_RESERVED_INPUT_2]=        0,
;2921   3940  2                 [QUI$_SEARCH_FLAGS]=            4,
;2922   3941  2                 [QUI$_SEARCH_NAME]=             0,
;2923   3942  2                 [QUI$_SEARCH_NUMBER]=           4);
;2924   3943  2
;2925   3944  2
;2926   3945  2 LITERAL
;2927   3946  2         K_OUTPUT_ITEM=                  1,
;2928   3947  2         K_STRING=                       2,
;2929   3948  2         K_VALUE=                        3;
;2930   3949  2
;2931   3950  2
;2932   3951  2 OWN
;2933   3952  2         VALUE_STORAGE_CASE:
;2934   3953  2             VECTOR[MAX_GETQUI_ITEM+1,BYTE] PSECT(CODE) PRESET(
;2935   3954  2                 [QUI$_ACCOUNT_NAME]=            K_OUTPUT_ITEM,
;2936   3955  2                 [QUI$_AFTER_TIME]=              K_OUTPUT_ITEM,
;2937   3956  2                 [QUI$_ASSIGNED_QUEUE_NAME]=     K_OUTPUT_ITEM,
```

```
;  2938     3957  2                [QUI$_BASE_PRIORITY]=            K_OUTPUT_ITEM,
;  2939     3958  2                [QUI$_CHARACTERISTIC_NAME]=      K_OUTPUT_ITEM,
;  2940     3959  2                [QUI$_CHARACTERISTIC_NUMBER]=    K_OUTPUT_ITEM,
;  2941     3960  2                [QUI$_CHARACTERISTICS]=          K_OUTPUT_ITEM,
;  2942     3961  2                [QUI$_CHECKPOINT_DATA]=          K_OUTPUT_ITEM,
;  2943     3962  2                [QUI$_CLI]=                      K_OUTPUT_ITEM,
;  2944     3963  2                [QUI$_COMPLETED_BLOCKS]=         K_OUTPUT_ITEM,
;  2945     3964  2                [QUI$_CONDITION_VECTOR]=         K_OUTPUT_ITEM,
;  2946     3965  2                [QUI$_CPU_DEFAULT]=              K_OUTPUT_ITEM,
;  2947     3966  2                [QUI$_CPU_LIMIT]=                K_OUTPUT_ITEM,
;  2948     3967  2                [QUI$_DEVICE_NAME]=              K_OUTPUT_ITEM,
;  2949     3968  2                [QUI$_ENTRY_NUMBER]=             K_OUTPUT_ITEM,
;  2950     3969  2                [QUI$_FILE_COPIES]=              K_OUTPUT_ITEM,
;  2951     3970  2                [QUI$_FILE_COPIES_CHKPT]=        K_OUTPUT_ITEM,
;  2952     3971  2                [QUI$_FILE_COPIES_DONE]=         K_OUTPUT_ITEM,
;  2953     3972  2                [QUI$_FILE_FLAGS]=               K_OUTPUT_ITEM,
;  2954     3973  2                [QUI$_FILE_SETUP_MODULES]=       K_OUTPUT_ITEM,
;  2955     3974  2                [QUI$_FILE_SPECIFICATION]=       K_OUTPUT_ITEM,
;  2956     3975  2                [QUI$_FILE_STATUS]=              K_OUTPUT_ITEM,
;  2957     3976  2                [QUI$_FIRST_PAGE]=               K_OUTPUT_ITEM,
;  2958     3977  2                [QUI$_FORM_DESCRIPTION]=         K_OUTPUT_ITEM,
;  2959     3978  2                [QUI$_FORM_FLAGS]=               K_OUTPUT_ITEM,
;  2960     3979  2                [QUI$_FORM_LENGTH]=              K_OUTPUT_ITEM,
;  2961     3980  2                [QUI$_FORM_MARGIN_BOTTOM]=       K_OUTPUT_ITEM,
;  2962     3981  2                [QUI$_FORM_MARGIN_LEFT]=         K_OUTPUT_ITEM,
;  2963     3982  2                [QUI$_FORM_MARGIN_RIGHT]=        K_OUTPUT_ITEM,
;  2964     3983  2                [QUI$_FORM_MARGIN_TOP]=          K_OUTPUT_ITEM,
;  2965     3984  2                [QUI$_FORM_NAME]=                K_OUTPUT_ITEM,
;  2966     3985  2                [QUI$_FORM_NUMBER]=              K_OUTPUT_ITEM,
;  2967     3986  2                [QUI$_FORM_SETUP_MODULES]=       K_OUTPUT_ITEM,
;  2968     3987  2                [QUI$_FORM_STOCK]=               K_OUTPUT_ITEM,
;  2969     3988  2                [QUI$_FORM_WIDTH]=               K_OUTPUT_ITEM,
;  2970     3989  2                [QUI$_GENERIC_TARGET]=           K_OUTPUT_ITEM,
;  2971     3990  2                [QUI$_INTERVENING_BLOCKS]=       K_OUTPUT_ITEM,
;  2972     3991  2                [QUI$_INTERVENING_JOBS]=         K_OUTPUT_ITEM,
;  2973     3992  2                [QUI$_JOB_COPIES]=               K_OUTPUT_ITEM,
;  2974     3993  2                [QUI$_JOB_COPIES_CHKPT]=         K_OUTPUT_ITEM,
;  2975     3994  2                [QUI$_JOB_COPIES_DONE]=          K_OUTPUT_ITEM,
;  2976     3995  2                [QUI$_JOB_FLAGS]=                K_OUTPUT_ITEM,
;  2977     3996  2                [QUI$_JOB_LIMIT]=                K_OUTPUT_ITEM,
;  2978     3997  2                [QUI$_JOB_NAME]=                 K_OUTPUT_ITEM,
;  2979     3998  2                [QUI$_JOB_RESET_MODULES]=        K_OUTPUT_ITEM,
;  2980     3999  2                [QUI$_JOB_SIZE]=                 K_OUTPUT_ITEM,
;  2981     4000  2                [QUI$_JOB_SIZE_MAXIMUM]=         K_OUTPUT_ITEM,
;  2982     4001  2                [QUI$_JOB_SIZE_MINIMUM]=         K_OUTPUT_ITEM,
;  2983     4002  2                [QUI$_JOB_STATUS]=               K_OUTPUT_ITEM,
;  2984     4003  2                [QUI$_LAST_PAGE]=                K_OUTPUT_ITEM,
;  2985     4004  2                [QUI$_LIBRARY_SPECIFICATION]=    K_OUTPUT_ITEM,
;  2986     4005  2                [QUI$_LOG_QUEUE]=                K_OUTPUT_ITEM,
;  2987     4006  2                [QUI$_LOG_SPECIFICATION]=        K_OUTPUT_ITEM,
;  2988     4007  2                [QUI$_NOTE]=                     K_OUTPUT_ITEM,
;  2989     4008  2                [QUI$_OPERATOR_REQUEST]=         K_OUTPUT_ITEM,
;  2990     4009  2                [QUI$_OWNER_UIC]=                K_OUTPUT_ITEM,
;  2991     4010  2                [QUI$_PAGE_SETUP_MODULES]=       K_OUTPUT_ITEM,
;  2992     4011  2                [QUI$_PARAMETER_1]=              K_OUTPUT_ITEM,
;  2993     4012  2                [QUI$_PARAMETER_2]=              K_OUTPUT_ITEM,
;  2994     4013  2                [QUI$_PARAMETER_3]=              K_OUTPUT_ITEM,
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;  2995     4014  2                [QUI$_PARAMETER_4]=          K_OUTPUT_ITEM,
;  2996     4015  2                [QUI$_PARAMETER_5]=          K_OUTPUT_ITEM,
;  2997     4016  2                [QUI$_PARAMETER_6]=          K_OUTPUT_ITEM,
;  2998     4017  2                [QUI$_PARAMETER_7]=          K_OUTPUT_ITEM,
;  2999     4018  2                [QUI$_PARAMETER_8]=          K_OUTPUT_ITEM,
;  3000     4019  2                [QUI$_PRIORITY]=             K_OUTPUT_ITEM,
;  3001     4020  2                [QUI$_PROCESSOR]=            K_OUTPUT_ITEM,
;  3002     4021  2                [QUI$_PROTECTION]=           K_OUTPUT_ITEM,
;  3003     4022  2                [QUI$_QUEUE_FLAGS]=          K_OUTPUT_ITEM,
;  3004     4023  2                [QUI$_QUEUE_NAME]=           K_OUTPUT_ITEM,
;  3005     4024  2                [QUI$_QUEUE_STATUS]=         K_OUTPUT_ITEM,
;  3006     4025  2                [QUI$_REFUSAL_REASON]=       K_OUTPUT_ITEM,
;  3007     4026  2                [QUI$_REQUEUE_PRIORITY]=     K_OUTPUT_ITEM,
;  3008     4027  2                [QUI$_REQUEUE_QUEUE_NAME]=   K_OUTPUT_ITEM,
;  3009     4028  2                [QUI$_RESERVED_INPUT_1]=     K_VALUE,
;  3010     4029  2                [QUI$_RESERVED_INPUT_2]=     K_STRING,
;  3011     4030  2                [QUI$_RESERVED_OUTPUT_1]=    K_OUTPUT_ITEM,
;  3012     4031  2                [QUI$_RESERVED_OUTPUT_2]=    K_OUTPUT_ITEM,
;  3013     4032  2                [QUI$_RESERVED_OUTPUT_3]=    K_OUTPUT_ITEM,
;  3014     4033  2                [QUI$_RESERVED_OUTPUT_4]=    K_OUTPUT_ITEM,
;  3015     4034  2                [QUI$_RESERVED_OUTPUT_5]=    K_OUTPUT_ITEM,
;  3016     4035  2                [QUI$_RESERVED_OUTPUT_6]=    K_OUTPUT_ITEM,
;  3017     4036  2                [QUI$_SCSNODE_NAME]=         K_OUTPUT_ITEM,
;  3018     4037  2                [QUI$_SEARCH_FLAGS]=         K_VALUE,
;  3019     4038  2                [QUI$_SEARCH_NAME]=          K_STRING,
;  3020     4039  2                [QUI$_SEARCH_NUMBER]=        K_VALUE,
;  3021     4040  2                [QUI$_SUBMISSION_TIME]=      K_OUTPUT_ITEM,
;  3022     4041  2                [QUI$_UIC]=                  K_OUTPUT_ITEM,
;  3023     4042  2                [QUI$_USERNAME]=             K_OUTPUT_ITEM,
;  3024     4043  2                [QUI$_WSDEFAULT]=            K_OUTPUT_ITEM,
;  3025     4044  2                [QUI$_WSEXTENT]=             K_OUTPUT_ITEM,
;  3026     4045  2                [QUI$_WSQUOTA]=              K_OUTPUT_ITEM);
;  3027     4046  2
;  3028     4047  2
;  3029     4048  2 LOCAL
;  3030     4049  2         VALUE_STORAGE:  REF BBLOCK;     ! Pointer to internal storage area
;  3031     4050  2
;  3032     4051  2
;  3033     4052  2 IF
;  3034     4053  3     BEGIN
;  3035     4054  3     IF .REQUIRED_VALUE_SIZE[.CODE] EQL 0
;  3036     4055  3     THEN
;  3037     4056  3         FALSE
;  3038     4057  3     ELSE IF .REQUIRED_VALUE_SIZE[.CODE] LSS 0
;  3039     4058  3     THEN
;  3040     4059  3         .VALUE_SIZE GTRU - .REQUIRED_VALUE_SIZE[.CODE]
;  3041     4060  3     ELSE
;  3042     4061  3         .VALUE_SIZE NEQ .REQUIRED_VALUE_SIZE[.CODE]
;  3043     4062  3     END
;  3044     4063  2 THEN
;  3045     4064  2     RETURN JBC$_INVPARLEN;
;  3046     4065  2
;  3047     4066  2
;  3048     4067  2 VALUE_STORAGE = VALUE_GETQUI_BASE + .CODE * ODSC_S_ENTRY;
;  3049     4068  2
;  3050     4069  2
;  3051     4070  2 CASE .VALUE_STORAGE_CASE[.CODE] FROM K_OUTPUT_ITEM TO K_VALUE OF
```

```
;  3052          4071  2      SET
;  3053          4072  2
;  3054          4073  2
;  3055          4074  2      [K_OUTPUT_ITEM]:
;  3056          4075  3          BEGIN
;  3057          4076  3          VALUE_STORAGE[ODSC_W_LENGTH] = .VALUE_SIZE;
;  3058          4077  3          VALUE_STORAGE[ODSC_A_POINTER] = .VALUE_ADDRESS[0,0,32,0];
;  3059          4078  3          VALUE_STORAGE[ODSC_A_LENPOINTER] = .VALUE_ADDRESS[4,0,32,0];
;  3060          4079  2          END;
;  3061          4080  2
;  3062          4081  2
;  3063          4082  2      [K_STRING]:
;  3064          4083  3          BEGIN
;  3065          4084  3          IF .VALUE_SIZE EQL 0 THEN RETURN JBC$_INVPARLEN;
;  3066          4085  3          VALUE_STORAGE[SDSC_W_LENGTH] = .VALUE_SIZE;
;  3067          4086  3          VALUE_STORAGE[SDSC_A_POINTER] = .VALUE_ADDRESS;
;  3068          4087  2          END;
;  3069          4088  2
;  3070          4089  2
;  3071          4090  2      [K_VALUE]:
;  3072          4091  2          CH$MOVE(.VALUE_SIZE, .VALUE_ADDRESS, .VALUE_STORAGE);
;  3073          4092  2
;  3074          4093  2
;  3075          4094  2      TES;
;  3076          4095  2
;  3077          4096  2
;  3078          4097  2  ITEM_PRESENT[.CODE] = TRUE;
;  3079          4098  2  SS$_NORMAL
;  3080          4099  1  END;

                                                    0128B          .BLKB   1
                                                 00# 0128C  REQUIRED_VALUE_SIZE:
                                                                .BYTE   0[152]                                          ;
                                          0004  0000  0004   01324          .WORD   4, 0, 4                               ;
                                                 00# 0132A          .BYTE   0[16]                                        ;
                                                0000  0004   0133A          .WORD   4, 0                                  ;
                                                      0004   0133E          .BLKB   12                                    ;
                                                      0004   0134A          .BLKB   2                                     ;
                                                 00   0134C  VALUE_STORAGE_CASE:
                                                                .BYTE   0                                               ;
01  01  01  01  01  01  01  01  01  01  01  01  01  01  01  01   0134D          .BYTE   1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, -  ;
01  01  01  01  01  01  01  01  01  01  01  01  01  01  01  01   0135C                  1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, -  ;
01  01  01  01  01  01  01  01  01  01  01  01  01  01  01  01   0136B                  1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, -  ;
01  01  01  01  01  01  01  01  01  01  01  01  01  01  01  01   0137A                  1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, -  ;
01  01  01  01  01  01  01  01  01  01  01  01  01  01  01  01   01389                  1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, -  ;
                    01  01  01  01  01  01  03  02  03  01398                  1, 1, 1, 1, 1, 3, 2, 3, 1, 1, 1, 1, 1, 1      ;
                                                 00# 013A1          .BYTE   0[2]                                         ;
                        01  01  01  01  01  01  02  03  013A3          .BYTE   3, 2, 1, 1, 1, 1, 1, 1                      ;


                                                 007C 00000 PROCESS_ONE_OPTION:
                                                                .WORD   Save R2,R3,R4,R5,R6                             ; 3900
                                          56      04   AC  D0 00002          MOVL    CODE, R6                              ; 4054
                                          50  FED6 CF46  32 00006          CVTWL   REQUIRED_VALUE_SIZE[R6], R0           ;
```

```
                                                13  13 0000C          BEQL    2$                                              ;
                                                0B  18 0000E          BGEQ    1$                                              ; 4057
                                     50         50  CE 00010          MNEGL   R0, R0                                          ; 4059
                                     50     08  AC  D1 00013          CMPL    VALUE_SIZE, R0                                  ;
                                                08  1B 00017          BLEQU   2$                                              ;
                                                32  11 00019          BRB     6$                                              ;
                                     50     08  AC  D1 00013 1$:      CMPL    VALUE_SIZE, R0                                  ; 4061
                                                2C  12 0001F          BNEQ    6$                                              ;
                                56               0A  C5 00021 2$:      MULL3   #10, R6, R0                                     ; 4067
                                     50 00000000'EF40  9E 00025          MOVAB   VALUE_GETQUI_BASE[R0], VALUE_STORAGE            ;
                                     51     0C  AC  D0 0002D          MOVL    VALUE_ADDRESS, R1                               ; 4077
                                01     FF6B CF46  8F 00031          CASEB   VALUE_STORAGE_CASE[R6], #1, #2                  ; 4070
                           0010          0006      00038 3$:      .WORD   4$-3$,-                                         ;
                                                                           5$-3$,-                                         ;
                                                                           8$-3$                                           ;
                                     60     08  AC  B0 0003E 4$:      MOVW    VALUE_SIZE, (VALUE_STORAGE)                     ; 4076
                                02   A0         61  7D 00042          MOVQ    (R1), 2(VALUE_STORAGE)                          ; 4077
                                                1C  11 00046          BRB     9$                                              ; 4070
                                     08  AC  D5 00048 5$:      TSTL    VALUE_SIZE                                      ; 4084
                                                08  12 0004B          BNEQ    7$                                              ;
                                     50 00048090  8F  D0 0004D 6$:      MOVL    #295056, R0                                     ;
                                                    04 00054          RET                                                     ;
                                     60     08  AC  B0 00055 7$:      MOVW    VALUE_SIZE, (VALUE_STORAGE)                     ; 4085
                                02   A0         51  D0 00059          MOVL    R1, 2(VALUE_STORAGE)                            ; 4086
                                                05  11 0005D          BRB     9$                                              ; 4070
                           60               61     08  AC  28 0005F 8$:      MOVC3   VALUE_SIZE, (R1), (VALUE_STORAGE)       ; 4091
                           00 00000000'     EF         56  E2 00064 9$:      BBSS    R6, ITEM_PRESENT, 10$                   ; 4097
                                     50         01  D0 0006C 10$:     MOVL    #1, R0                                          ; 4099
                                                    04 0006F          RET                                                     ;

; Routine Size:  112 bytes,    Routine Base:  CODE + 13AB
```

```
;  3082     4100  1 ROUTINE PROCESS_GETQUI_ITEM_LIST=
;  3083     4101  1
;  3084     4102  1 !++
;  3085     4103  1 !
;  3086     4104  1 ! FUNCTIONAL DESCRIPTION:
;  3087     4105  1 !       This routine processes the item list of a $GETQUI service into internal
;  3088     4106  1 !       data structures.
;  3089     4107  1 !
;  3090     4108  1 ! INPUT PARAMETERS:
;  3091     4109  1 !       NONE
;  3092     4110  1 !
;  3093     4111  1 ! IMPLICIT INPUTS:
;  3094     4112  1 !       MBX             - Pointer to buffered mailbox message.
;  3095     4113  1 !
;  3096     4114  1 ! OUTPUT PARAMETERS:
;  3097     4115  1 !       NONE
;  3098     4116  1 !
;  3099     4117  1 ! IMPLICIT OUTPUTS:
;  3100     4118  1 !       Values in the item list in internal storage.
;  3101     4119  1 !
;  3102     4120  1 ! ROUTINE VALUE:
;  3103     4121  1 !       Completion status.
;  3104     4122  1 !
;  3105     4123  1 ! SIDE EFFECTS:
;  3106     4124  1 !       NONE
;  3107     4125  1 !
;  3108     4126  1 !--
;  3109     4127  1
;  3110     4128  2 BEGIN
;  3111     4129  2 LOCAL
;  3112     4130  2         VALUE_CURSOR:   REF BBLOCK,     ! Cursor over item list
;  3113     4131  2         VALID_ITEMS:    REF BITVECTOR;  ! Pointer to mask of valid item codes
;  3114     4132  2
;  3115     4133  2
;  3116     4134  2 MACRO
;  3117   M 4135  2         BOOLEAN_VECTOR[]=
;  3118   M 4136  2             BITVECTOR[MAX_GETQUI_ITEM+1] PSECT(CODE) ALIGN(0)
;  3119     4137  2             PRESET(BOOLEAN_VECTOR_1(%REMAINING)) %,
;  3120     4138  2
;  3121   M 4139  2         BOOLEAN_VECTOR_1[A]=
;  3122     4140  2             [A] = TRUE %;
;  3123     4141  2
;  3124     4142  2
;  3125     4143  2 OWN
;  3126     4144  2         NO_BITS:
;  3127     4145  2             BITVECTOR[MAX_GETQUI_ITEM+1] PSECT(CODE) ALIGN(0) INITIAL(0),
;  3128     4146  2
;  3129     4147  2         DISPLAY_CHARACTERISTIC_OPTIONS:
;  3130   P 4148  2             BOOLEAN_VECTOR(
;  3131   P 4149  2                 QUI$_SEARCH_FLAGS,
;  3132   P 4150  2                 QUI$_SEARCH_NAME,
;  3133   P 4151  2                 QUI$_CHARACTERISTIC_NAME,
;  3134     4152  2                 QUI$_CHARACTERISTIC_NUMBER),
;  3135     4153  2
;  3136     4154  2         DISPLAY_FILE_OPTIONS:
;  3137   P 4155  2             BOOLEAN_VECTOR(
;  3138   P 4156  2                 QUI$_SEARCH_FLAGS,
```

```
;  3139        P 4157  2                QUI$_FILE_COPIES,
;  3140        P 4158  2                QUI$_FILE_COPIES_CHKPT,
;  3141        P 4159  2                QUI$_FILE_COPIES_DONE,
;  3142        P 4160  2                QUI$_FILE_FLAGS,
;  3143        P 4161  2                QUI$_FILE_SETUP_MODULES,
;  3144        P 4162  2                QUI$_FILE_SPECIFICATION,
;  3145        P 4163  2                QUI$_FILE_STATUS,
;  3146        P 4164  2                QUI$_FIRST_PAGE,
;  3147          4165  2                QUI$_LAST_PAGE),
;  3148          4166  2
;  3149          4167  2          DISPLAY_FORM_OPTIONS:
;  3150        P 4168  2              BOOLEAN_VECTOR(
;  3151        P 4169  2                   QUI$_SEARCH_FLAGS,
;  3152        P 4170  2                   QUI$_SEARCH_NAME,
;  3153        P 4171  2                   QUI$_SEARCH_NUMBER,
;  3154        P 4172  2                   QUI$_FORM_DESCRIPTION,
;  3155        P 4173  2                   QUI$_FORM_FLAGS,
;  3156        P 4174  2                   QUI$_FORM_LENGTH,
;  3157        P 4175  2                   QUI$_FORM_MARGIN_BOTTOM,
;  3158        P 4176  2                   QUI$_FORM_MARGIN_LEFT,
;  3159        P 4177  2                   QUI$_FORM_MARGIN_RIGHT,
;  3160        P 4178  2                   QUI$_FORM_MARGIN_TOP,
;  3161        P 4179  2                   QUI$_FORM_NAME,
;  3162        P 4180  2                   QUI$_FORM_NUMBER,
;  3163        P 4181  2                   QUI$_FORM_SETUP_MODULES,
;  3164        P 4182  2                   QUI$_FORM_STOCK,
;  3165        P 4183  2                   QUI$_FORM_WIDTH,
;  3166          4184  2                   QUI$_PAGE_SETUP_MODULES),
;  3167          4185  2
;  3168          4186  2          DISPLAY_JOB_OPTIONS:
;  3169        P 4187  2              BOOLEAN_VECTOR(
;  3170        P 4188  2                   QUI$_SEARCH_FLAGS,
;  3171        P 4189  2                   QUI$_SEARCH_NAME,
;  3172        P 4190  2                   QUI$_SEARCH_NUMBER,
;  3173        P 4191  2                   QUI$_ACCOUNT_NAME,
;  3174        P 4192  2                   QUI$_AFTER_TIME,
;  3175        P 4193  2                   QUI$_CHARACTERISTICS,
;  3176        P 4194  2                   QUI$_CHECKPOINT_DATA,
;  3177        P 4195  2                   QUI$_CLI,
;  3178        P 4196  2                   QUI$_COMPLETED_BLOCKS,
;  3179        P 4197  2                   QUI$_CONDITION_VECTOR,
;  3180        P 4198  2                   QUI$_CPU_LIMIT,
;  3181        P 4199  2                   QUI$_ENTRY_NUMBER,
;  3182        P 4200  2                   QUI$_FORM_NAME,
;  3183        P 4201  2                   QUI$_INTERVENING_BLOCKS,
;  3184        P 4202  2                   QUI$_INTERVENING_JOBS,
;  3185        P 4203  2                   QUI$_JOB_COPIES,
;  3186        P 4204  2                   QUI$_JOB_COPIES_CHKPT,
;  3187        P 4205  2                   QUI$_JOB_COPIES_DONE,
;  3188        P 4206  2                   QUI$_JOB_FLAGS,
;  3189        P 4207  2                   QUI$_JOB_NAME,
;  3190        P 4208  2                   QUI$_JOB_SIZE,
;  3191        P 4209  2                   QUI$_JOB_STATUS,
;  3192        P 4210  2                   QUI$_LOG_QUEUE,
;  3193        P 4211  2                   QUI$_LOG_SPECIFICATION,
;  3194        P 4212  2                   QUI$_NOTE,
;  3195        P 4213  2                   QUI$_OPERATOR_REQUEST,
```

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;3196        P 4214  2                   QUI$_PARAMETER_1,
;3197        P 4215  2                   QUI$_PARAMETER_2,
;3198        P 4216  2                   QUI$_PARAMETER_3,
;3199        P 4217  2                   QUI$_PARAMETER_4,
;3200        P 4218  2                   QUI$_PARAMETER_5,
;3201        P 4219  2                   QUI$_PARAMETER_6,
;3202        P 4220  2                   QUI$_PARAMETER_7,
;3203        P 4221  2                   QUI$_PARAMETER_8,
;3204        P 4222  2                   QUI$_PRIORITY,
;3205        P 4223  2                   QUI$_QUEUE_NAME,
;3206        P 4224  2                   QUI$_REFUSAL_REASON,
;3207        P 4225  2                   QUI$_REQUEUE_PRIORITY,
;3208        P 4226  2                   QUI$_REQUEUE_QUEUE_NAME,
;3209        P 4227  2                   QUI$_SUBMISSION_TIME,
;3210        P 4228  2                   QUI$_UIC,
;3211        P 4229  2                   QUI$_USERNAME,
;3212        P 4230  2                   QUI$_WSDEFAULT,
;3213        P 4231  2                   QUI$_WSEXTENT,
;3214          4232  2                   QUI$_WSQUOTA),
;3215          4233  2
;3216          4234  2           DISPLAY_QUEUE_OPTIONS:
;3217        P 4235  2               BOOLEAN_VECTOR(
;3218        P 4236  2                   QUI$_SEARCH_FLAGS,
;3219        P 4237  2                   QUI$_SEARCH_NAME,
;3220        P 4238  2                   QUI$_ASSIGNED_QUEUE_NAME,
;3221        P 4239  2                   QUI$_BASE_PRIORITY,
;3222        P 4240  2                   QUI$_CHARACTERISTICS,
;3223        P 4241  2                   QUI$_CPU_DEFAULT,
;3224        P 4242  2                   QUI$_CPU_LIMIT,
;3225        P 4243  2                   QUI$_DEVICE_NAME,
;3226        P 4244  2                   QUI$_FORM_NAME,
;3227        P 4245  2                   QUI$_GENERIC_TARGET,
;3228        P 4246  2                   QUI$_JOB_LIMIT,
;3229        P 4247  2                   QUI$_JOB_RESET_MODULES,
;3230        P 4248  2                   QUI$_JOB_SIZE_MAXIMUM,
;3231        P 4249  2                   QUI$_JOB_SIZE_MINIMUM,
;3232        P 4250  2                   QUI$_LIBRARY_SPECIFICATION,
;3233        P 4251  2                   QUI$_OWNER_UIC,
;3234        P 4252  2                   QUI$_PROCESSOR,
;3235        P 4253  2                   QUI$_PROTECTION,
;3236        P 4254  2                   QUI$_QUEUE_FLAGS,
;3237        P 4255  2                   QUI$_QUEUE_NAME,
;3238        P 4256  2                   QUI$_QUEUE_STATUS,
;3239        P 4257  2                   QUI$_SCSNODE_NAME,
;3240        P 4258  2                   QUI$_WSDEFAULT,
;3241        P 4259  2                   QUI$_WSEXTENT,
;3242          4260  2                   QUI$_WSQUOTA),
;3243          4261  2
;3244          4262  2           RESERVED_FUNC_OPTIONS:
;3245        P 4263  2               BOOLEAN_VECTOR(
;3246        P 4264  2                   QUI$_RESERVED_INPUT_1,
;3247        P 4265  2                   QUI$_RESERVED_INPUT_2,
;3248        P 4266  2                   QUI$_RESERVED_OUTPUT_1,
;3249        P 4267  2                   QUI$_RESERVED_OUTPUT_2,
;3250        P 4268  2                   QUI$_RESERVED_OUTPUT_3,
;3251        P 4269  2                   QUI$_RESERVED_OUTPUT_4,
;3252        P 4270  2                   QUI$_RESERVED_OUTPUT_5,
```

```
;  3253          4271  2                 QUI$_RESERVED_OUTPUT_6),
;  3254          4272  2
;  3255          4273  2         TRANSLATE_QUEUE_OPTIONS:
;  3256        P 4274  2             BOOLEAN_VECTOR(
;  3257        P 4275  2                 QUI$_SEARCH_NAME,
;  3258          4276  2                 QUI$_QUEUE_NAME),
;  3259          4277  2
;  3260          4278  2         VALID_ITEM_TABLE:       VECTOR[MAX_GETQUI_FUNC+1] PSECT(CODE) PRESET(
;  3261          4279  2                 [QUI$_CANCEL_OPERATION]=        NO_BITS,
;  3262          4280  2                 [QUI$_DISPLAY_CHARACTERISTIC]=  DISPLAY_CHARACTERISTIC_OPTIONS,
;  3263          4281  2                 [QUI$_DISPLAY_FILE]=            DISPLAY_FILE_OPTIONS,
;  3264          4282  2                 [QUI$_DISPLAY_FORM]=            DISPLAY_FORM_OPTIONS,
;  3265          4283  2                 [QUI$_DISPLAY_JOB]=             DISPLAY_JOB_OPTIONS,
;  3266          4284  2                 [QUI$_DISPLAY_QUEUE]=           DISPLAY_QUEUE_OPTIONS,
;  3267          4285  2                 [QUI$_RESERVED_FUNC_1]=         RESERVED_FUNC_OPTIONS,
;  3268          4286  2                 [QUI$_RESERVED_FUNC_2]=         RESERVED_FUNC_OPTIONS,
;  3269          4287  2                 [QUI$_TRANSLATE_QUEUE]=         TRANSLATE_QUEUE_OPTIONS),
;  3270          4288  2
;  3271          4289  2         INPUT_ITEM:
;  3272        P 4290  2             BOOLEAN_VECTOR(
;  3273        P 4291  2                 QUI$_RESERVED_INPUT_1,
;  3274        P 4292  2                 QUI$_RESERVED_INPUT_2,
;  3275        P 4293  2                 QUI$_SEARCH_FLAGS,
;  3276        P 4294  2                 QUI$_SEARCH_NAME,
;  3277          4295  2                 QUI$_SEARCH_NUMBER);
;  3278          4296  2
;  3279          4297  2
;  3280          4298  2 ! Initialize to scan the item list.
;  3281          4299  2 !
;  3282          4300  2 CH$FILL(0, VALUE_STORAGE_END - VALUE_STORAGE_BASE, VALUE_STORAGE_BASE);
;  3283          4301  2 VALUE_CURSOR = MBX[ACM$T_ITMLST];
;  3284          4302  2 VALID_ITEMS = .VALID_ITEM_TABLE[.MBX[ACM$W_FUNC]];
;  3285          4303  2
;  3286          4304  2
;  3287          4305  2 ! Loop over all elements of the item list.
;  3288          4306  2 !
;  3289          4307  2 WHILE .VALUE_CURSOR LSSA .MBX_END DO
;  3290          4308  3     BEGIN
;  3291          4309  3     LOCAL
;  3292          4310  3         VALUE_SIZE,
;  3293          4311  3         CODE,                   ! Item code
;  3294          4312  3         STATUS;
;  3295          4313  3
;  3296          4314  3
;  3297          4315  3     ! Fetch and validate the item code.
;  3298          4316  3     !
;  3299          4317  3     CODE = .VALUE_CURSOR[0,0,16,0];
;  3300          4318  3     VALUE_CURSOR = .VALUE_CURSOR + 2;
;  3301          4319  3     IF .CODE LSSU MIN_GETQUI_ITEM OR .CODE GTRU MAX_GETQUI_ITEM
;  3302          4320  3         THEN RETURN JBC$_INVITMCOD;
;  3303          4321  3     IF NOT .VALID_ITEMS[.CODE]
;  3304          4322  3         THEN RETURN JBC$_INVITMCOD;
;  3305          4323  3     ITEM_PRESENT[.CODE] = TRUE;
;  3306          4324  3
;  3307          4325  3
;  3308          4326  3     ! Fetch and validate the item's parameter value.
;  3309          4327  3     !
```

```
;  3310     4328  3      VALUE_SIZE = .VALUE_CURSOR[0,0,16,0];
;  3311     4329  3      VALUE_CURSOR = .VALUE_CURSOR + 2;
;  3312     4330  3      STATUS = PROCESS_ONE_OPTION(.CODE, .VALUE_SIZE, .VALUE_CURSOR);
;  3313     4331  3      IF NOT .STATUS THEN RETURN .STATUS;
;  3314     4332  3      IF .INPUT_ITEM[.CODE]
;  3315     4333  3          THEN VALUE_CURSOR = .VALUE_CURSOR + .VALUE_SIZE
;  3316     4334  3          ELSE VALUE_CURSOR = .VALUE_CURSOR + 8;
;  3317     4335  2      END;
;  3318     4336  2
;  3319     4337  2
;  3320     4338  2 SS$_NORMAL
;  3321     4339  1 END;


                                00000000  0141B NO_BITS:.LONG   0                                                ;
                                          0141F         .BLKB   8
                                      60  01427 DISPLAY_CHARACTERISTIC_OPTIONS:
                                          01427         .BYTE   96                                               ;
                                      00# 01428         .BYTE   0[8]                                             ;
                                      30  01430         .BYTE   48                                               ;
                                          01431         .BLKB   2
                                      00# 01433 DISPLAY_FILE_OPTIONS:
                                          01433         .BYTE   0[2]
                                      FF  01435         .BYTE   -1                                               ;
                                      00# 01436         .BYTE   0[3]                                             ;
                                      04  01439         .BYTE   4                                                ;
                                      00# 0143A         .BYTE   0[2]                                             ;
                                      10  0143C         .BYTE   16                                               ;
                                          0143D         .BLKB   2
                                      00# 0143F DISPLAY_FORM_OPTIONS:
                                          0143F         .BYTE   0[3]
                                0F    FF  01442         .BYTE   -1, 15                                           ;
                                      00# 01444         .BYTE   0[2]                                             ;
                                      02  01446         .BYTE   2                                                ;
                                      00  01447         .BYTE   0                                                ;
                                      70  01448         .BYTE   112                                              ;
                                          01449         .BLKB   2
                                AF    86  0144B DISPLAY_JOB_OPTIONS:
                                          0144B         .BYTE   -122, -81                                        ;
                                      00  0144D         .BYTE   0                                                ;
1F  F7  47  FC  F2  57  E0    80  01456 0144E         .BYTE   -128, -32, 87, -14, -4, 71, -9, 31               ;
                                          01456         .BLKB   1
                                70    98  01457 DISPLAY_QUEUE_OPTIONS:
                                          01457         .BYTE   -104, 112                                        ;
                                      00  01459         .BYTE   0                                                ;
1C  38  F8  01  09  A8  10    80  01462 0145A         .BYTE   -128, 16, -88, 9, 1, -8, 56, 28                  ;
                                          01462         .BLKB   1
                                      00# 01463 RESERVED_FUNC_OPTIONS:
                                          01463         .BYTE   0[10]
                                7F    80  0146D         .BYTE   -128, 127                                        ;
                                      00# 0146F TRANSLATE_QUEUE_OPTIONS:
                                          0146F         .BYTE   0[8]
                                20    40  01477         .BYTE   64, 32                                           ;
                                          01479         .BLKB   2
                                          0147B         .BLKB   1
                                      00# 0147C VALID_ITEM_TABLE:
```

```
                                                                .BYTE   0[4]
00000000' 00000000' 00000000' 00000000' 00000000' 00000000' 01480       .ADDRESS NO_BITS, DISPLAY_CHARACTERISTIC_OPTIONS, -
                              00000000' 00000000' 00000000' 01498               DISPLAY_FILE_OPTIONS, -
                                                                                DISPLAY_FORM_OPTIONS, -
                                                                                DISPLAY_JOB_OPTIONS, -
                                                                                DISPLAY_QUEUE_OPTIONS, -
                                                                                TRANSLATE_QUEUE_OPTIONS, -
                                                                                RESERVED_FUNC_OPTIONS, -
                                                                                RESERVED_FUNC_OPTIONS
                                                        00# 014A4 INPUT_ITEM:
                                                                .BYTE   0[9]
                                                  01  80  70  014AD        .BYTE   112, -128, 1


                                                        007C 00000 PROCESS_GETQUI_ITEM_LIST:
                                                                .WORD   Save R2,R3,R4,R5,R6                             ; 4100
                                      56 00000000'  EF  9E 00002        MOVAB   VALUE_STORAGE_BASE, R6
    05A0    8F            00            6E          00  2C 00009        MOVC5   #0, (SP), #0, #1440, VALUE_STORAGE_BASE ; 4300
                                                      66   00010
                                      50     F440   C6  D0 00011        MOVL    MBX, R0                                 ; 4301
                                      52       5A   A0  9E 00016        MOVAB   90(R0), VALUE_CURSOR
                                      50       58   A0  3C 0001A        MOVZWL  88(R0), R0                              ; 4302
                                      55       AA AF40  D0 0001E        MOVL    VALID_ITEM_TABLE[R0], VALID_ITEMS
                                F444  C6            52  D1 00023 1$:     CMPL    VALUE_CURSOR, MBX_END                   ; 4307
                                                    3C  1E 00028        BGEQU   6$
                                      53            82  3C 0002A        MOVZWL  (VALUE_CURSOR)+, CODE                   ; 4317
                                                    0D  13 0002D        BEQL    2$                                      ; 4319
                           0000005E   8F            53  D1 0002F        CMPL    CODE, #94
                                                    04  1A 00036        BGTRU   2$
                           08           65          53  E0 00038        BBS     CODE, (VALID_ITEMS), 3$                 ; 4321
                                      50 00048060   8F  D0 0003C 2$:     MOVL    #295008, R0                             ; 4322
                                                    04  00043        RET
                           00           66          53  E2 00044 3$:     BBSS    CODE, ITEM_PRESENT, 4$                  ; 4323
                                      54            82  3C 00048 4$:     MOVZWL  (VALUE_CURSOR)+, VALUE_SIZE             ; 4328
                                                    52  DD 0004B        PUSHL   VALUE_CURSOR                            ; 4330
                                                    18  BB 0004D        PUSHR   #^M<R3,R4>
                                FEA7  CF            03  FB 0004F        CALLS   #3, PROCESS_ONE_OPTION
                                      12            50  E9 00054        BLBC    STATUS, 7$                              ; 4331
                           05     99  AF            53  E1 00057        BBC     CODE, INPUT_ITEM, 5$                    ; 4332
                                      52            54  C0 0005C        ADDL2   VALUE_SIZE, VALUE_CURSOR                ; 4333
                                                    C2  11 0005F        BRB     1$
                                      52            08  C0 00061 5$:     ADDL2   #8, VALUE_CURSOR                        ; 4334
                                                    BD  11 00064        BRB     1$                                      ; 4307
                                      50            01  D0 00066 6$:     MOVL    #1, R0                                  ; 4339
                                                        04 00069 7$:     RET

; Routine Size:  106 bytes,    Routine Base:  CODE + 14B0
```

```
;  3323     4340  1 ROUTINE FIND_GQC(PID)=
;  3324     4341  1
;  3325     4342  1 !++
;  3326     4343  1 !
;  3327     4344  1 ! FUNCTIONAL DESCRIPTION:
;  3328     4345  1 !       This routine finds the open $GETQUI context block for a specified
;  3329     4346  1 !       process.
;  3330     4347  1 !
;  3331     4348  1 ! INPUT PARAMETERS.
;  3332     4349  1 !       PID             - Process ID.
;  3333     4350  1 !
;  3334     4351  1 ! IMPLICIT INPUTS:
;  3335     4352  1 !       NONE
;  3336     4353  1 !
;  3337     4354  1 ! OUTPUT PARAMETERS:
;  3338     4355  1 !       NONE
;  3339     4356  1 !
;  3340     4357  1 ! IMPLICIT OUTPUTS:
;  3341     4358  1 !       NONE
;  3342     4359  1 !
;  3343     4360  1 ! ROUTINE VALUE:
;  3344     4361  1 !       Pointer to $GETQUI context block or 0.
;  3345     4362  1 !
;  3346     4363  1 ! SIDE EFFECTS:
;  3347     4364  1 !       NONE
;  3348     4365  1 !
;  3349     4366  1 !--
;  3350     4367  1
;  3351     4368  2 BEGIN
;  3352     4369  2 LOCAL
;  3353     4370  2         PREV,                   ! Pointer to link to GQC
;  3354     4371  2         GQC:            REF BBLOCK;     ! Pointer to $GETQUI context block
;  3355     4372  2
;  3356     4373  2
;  3357     4374  2 ! Locate the $GETQUI context block.
;  3358     4375  2 !
;  3359     4376  2 PREV = OPEN_GETQUI_LIST;
;  3360     4377  2 GQC = ..PREV;
;  3361     4378  2 WHILE .GQC NEQ 0 DO
;  3362     4379  3     BEGIN
;  3363     4380  3     IF .GQC[GQC_PID] EQL .PID
;  3364     4381  3     THEN
;  3365     4382  4         BEGIN
;  3366     4383  4         .PREV = .GQC[GQC_LINK];
;  3367     4384  4         EXITLOOP;
;  3368     4385  3         END;
;  3369     4386  3     PREV = .GQC;
;  3370     4387  3     GQC = ..PREV;
;  3371     4388  2     END;
;  3372     4389  2
;  3373     4390  2
;  3374     4391  2 .GQC
;  3375     4392  1 END;
```

```
                                        0000 00000 FIND_GQC:
                                                           .WORD   Save nothing                          ; 4340
                          51 00000000'   EF  9E 00002              MOVAB   OPEN_GETQUI_LIST, PREV        ; 4376
                          50             61  D0 00009 1$:          MOVL    (PREV), GQC                   ; 4377
                                         10  13 0000C              BEQL    3$                            ; 4378
                    04    AC       04    A0  D1 0000E              CMPL    4(GQC), PID                   ; 4380
                                         04  12 00013              BNEQ    2$                            ;
                          61             60  D0 00015              MOVL    (GQC), (PREV)                 ; 4383
                                         04  00018                  RET                                   ; 4382
                          51             50  D0 00019 2$:          MOVL    GQC, PREV                     ; 4386
                                         EB  11 0001C              BRB     1$                            ; 4387
                                             04 0001E 3$:          RET                                   ; 4392

; Routine Size:  31 bytes,    Routine Base:  CODE + 151A
```

```
;3377     4393  1 GLOBAL ROUTINE GETQUI_SERVICE=
;3378     4394  1
;3379     4395  1 !++
;3380     4396  1 !
;3381     4397  1 ! FUNCTIONAL DESCRIPTION:
;3382     4398  1 !       This routine processes the message type:
;3383     4399  1 !               MSG$_GETQUI             get queue information
;3384     4400  1 !       by dispatching to a request-specific routine.
;3385     4401  1 !
;3386     4402  1 ! INPUT PARAMETERS:
;3387     4403  1 !       NONE
;3388     4404  1 !
;3389     4405  1 ! IMPLICIT INPUTS:
;3390     4406  1 !       MBX             - Pointer to buffered mailbox message.
;3391     4407  1 !
;3392     4408  1 ! OUTPUT PARAMETERS:
;3393     4409  1 !       NONE
;3394     4410  1 !
;3395     4411  1 ! IMPLICIT OUTPUTS:
;3396     4412  1 !       NONE
;3397     4413  1 !
;3398     4414  1 ! ROUTINE VALUE:
;3399     4415  1 !       Completion status to be returned to requestor.
;3400     4416  1 !
;3401     4417  1 ! SIDE EFFECTS:
;3402     4418  1 !       NONE
;3403     4419  1 !
;3404     4420  1 !--
;3405     4421  1
;3406     4422  2 BEGIN
;3407     4423  2 OWN
;3408     4424  2         PROCESSING_ROUTINE:             VECTOR[MAX_GETQUI_FUNC+1]
;3409     4425  2             PSECT(CODE) PRESET(
;3410     4426  2                 [QUI$_CANCEL_OPERATION]=         QUI_CANCEL_OPERATION,
;3411     4427  2                 [QUI$_DISPLAY_CHARACTERISTIC]=   QUI_DISPLAY_CHARACTERISTIC,
;3412     4428  2                 [QUI$_DISPLAY_FILE]=             QUI_DISPLAY_FILE,
;3413     4429  2                 [QUI$_DISPLAY_FORM]=             QUI_DISPLAY_FORM,
;3414     4430  2                 [QUI$_DISPLAY_JOB]=              QUI_DISPLAY_JOB,
;3415     4431  2                 [QUI$_DISPLAY_QUEUE]=            QUI_DISPLAY_QUEUE,
;3416     4432  2                 [QUI$_RESERVED_FUNC_1]=          QUI_RESERVED_FUNC_1,
;3417     4433  2                 [QUI$_RESERVED_FUNC_2]=          QUI_RESERVED_FUNC_2,
;3418     4434  2                 [QUI$_TRANSLATE_QUEUE]=          QUI_TRANSLATE_QUEUE);
;3419     4435  2
;3420     4436  2 LOCAL
;3421     4437  2         GQC:            REF BBLOCK,     ! Pointer to $GETQUI context block
;3422     4438  2         SAVED_GQC:      BBLOCK[GQC_K_LENGTH], ! Saved GQC before operation
;3423     4439  2         STATUS_1,                       ! Status return
;3424     4440  2         STATUS_2;                       ! Status return
;3425     4441  2
;3426     4442  2
;3427     4443  2 ! Ensure that the function code is in range.
;3428     4444  2 !
;3429     4445  2 DIAG_TRACE[1] = .MBX[ACMSW_FUNC];        ! ***** diagnostic info *****
;3430     4446  2 IF .MBX[ACMSW_FUNC] LSSU MIN_GETQUI_FUNC
;3431     4447  2 OR .MBX[ACMSW_FUNC] GTRU MAX_GETQUI_FUNC
;3432     4448  2 THEN
;3433     4449  2     RETURN JBC$_INVFUNCOD;
```

```
;  3434     4450  2
;  3435     4451  2 GETQUI_COUNT[.MBX[ACM$W_FUNC]] = .GETQUI_COUNT[.MBX[ACM$W_FUNC]] + 1;
;  3436     4452  2
;  3437     4453  2
;  3438     4454  2 ! Ensure that the queue file is open, and lock it.
;  3439     4455  2 !
;  3440     4456  2 IF .MBX[ACM$W_FUNC] NEQ QUI$_TRANSLATE_QUEUE
;  3441     4457  2 THEN
;  3442     4458  3     BEGIN
;  3443     4459  3     IF .QUEUE_FAB[FAB$W_IFI] EQL 0 THEN RETURN JBC$_JOBQUEDIS;
;  3444     4460  3     LOCK_QUEUE_FILE();
;  3445     4461  2     END;
;  3446     4462  2
;  3447     4463  2
;  3448     4464  2 ! Process the item list.
;  3449     4465  2 !
;  3450     4466  2 STATUS_1 = PROCESS_GETQUI_ITEM_LIST();
;  3451     4467  2 IF NOT .STATUS_1 THEN RETURN .STATUS_1;
;  3452     4468  2
;  3453     4469  2
;  3454     4470  2 ! Locate the $GETQUI context block.
;  3455     4471  2 !
;  3456     4472  2 GQC = FIND_GQC(.MBX[ACM$L_PID]);
;  3457     4473  2
;  3458     4474  2
;  3459     4475  2 ! If none found, allocate one.
;  3460     4476  2 !
;  3461     4477  2 IF .GQC EQL 0
;  3462     4478  2 THEN
;  3463     4479  3     BEGIN
;  3464     4480  3     GQC = ALLOCATE_MEMORY();
;  3465     4481  3     GQC[GQC_PID] = .MBX[ACM$L_PID];
;  3466     4482  3     GQC[GQC_SCX_N] = SQH$K_RECNO;
;  3467     4483  3     GQC[GQC_SFX_N] = SQH$K_RECNO;
;  3468     4484  3     GQC[GQC_SQX_N] = SQH$K_RECNO;
;  3469     4485  2     END;
;  3470     4486  2
;  3471     4487  2
;  3472     4488  2 ! Save the original context block.
;  3473     4489  2 !
;  3474     4490  2 CH$MOVE(GQC_K_LENGTH, .GQC, SAVED_GQC);
;  3475     4491  2
;  3476     4492  2
;  3477     4493  2 ! Set the forced wildcard flag if required.
;  3478     4494  2 !
;  3479     4495  2 IF .ITEM_PRESENT[QUI$_SEARCH_FLAGS]
;  3480     4496  2 THEN
;  3481     4497  2     GQC[GQC_FLG_WILD] = .VALUE_SEARCH_FLAGS[QUI$V_SEARCH_WILDCARD];
;  3482     4498  2
;  3483     4499  2
;  3484     4500  2 ! Dispatch to execute the request.
;  3485     4501  2 !
;  3486     4502  2 STATUS_2 = (.PROCESSING_ROUTINE[.MBX[ACM$W_FUNC]])(.GQC);
;  3487     4503  2
;  3488     4504  2
;  3489     4505  2 ! Link the $GETQUI context block to the open list or deallocate it.
;  3490     4506  2 !
```

```
;  3491          4507  2 IF .GQC[GQC_WILDCARDS] NEQ 0
;  3492          4508  2 THEN
;  3493          4509  3     BEGIN
;  3494          4510  3     UPDATE_GETQUI_LOCKS(SAVED_GQC, .GQC);
;  3495          4511  3     GQC[GQC_LINK] = .OPEN_GETQUI_LIST;
;  3496          4512  3     OPEN_GETQUI_LIST = .GQC;
;  3497          4513  3     END
;  3498          4514  2 ELSE
;  3499          4515  3     BEGIN
;  3500          4516  3     UPDATE_GETQUI_LOCKS(SAVED_GQC, 0);
;  3501          4517  3     DEALLOCATE_MEMORY(.GQC);
;  3502          4518  2     END;
;  3503          4519  2
;  3504          4520  2
;  3505          4521  2 .STATUS_2
;  3506          4522  1 END;


                                                        01539          .BLKB   3
                                                    00# 0153C PROCESSING_ROUTINE:
                                                                       .BYTE   0[4]
00000000' 00000000' 00000000' 00000000' 00000000' 00000000' 01540      .ADDRESS QUI_CANCEL_OPERATION, -                                ;
                          00000000' 00000000' 00000000' 01558                  QUI_DISPLAY_CHARACTERISTIC, -                     ;
                                                                               QUI_DISPLAY_FILE, QUI_DISPLAY_FORM, -             ;
                                                                               QUI_DISPLAY_JOB, QUI_DISPLAY_QUEUE, -             ;
                                                                               QUI_TRANSLATE_QUEUE, QUI_RESERVED_FUNC_1, -       ;
                                                                               QUI_RESERVED_FUNC_2                               ;


                                                        01FC 00000             .ENTRY  GETQUI_SERVICE, Save R2,R3,R4,R5,R6,R7,R8 ; 4393
                                58      ED72    CF   9E 00002                  MOVAB   UPDATE_GETQUI_LOCKS, R8                   ;
                                57 00000000'    EF   9E 00007                  MOVAB   MBX, R7                                   ;
                                5E              3C   C2 0000E                  SUBL2   #60, SP                                   ;
                                50              67   D0 00011                  MOVL    MBX, R0                                   ; 4445
                                50      58      A0   3C 00014                  MOVZWL  88(R0), R0                                ;
                            FDC4    C7              50   D0 00018              MOVL    R0, DIAG_TRACE+4                          ;
                                                    05   13 0001D              BEQL    1$                                        ; 4446
                                09                  50   B1 0001F              CMPW    R0, #9                                    ; 4447
                                                    08   1B 00022              BLEQU   2$                                        ;
                                50 00048068         8F   D0 00024 1$:          MOVL    #295016, R0                               ; 4449
                                                         04 0002B              RET                                               ;
                                        FF34    C740 D6   0002C 2$:          INCL    GETQUI_COUNT[R0]                          ; 4451
                                07                  50   B1 00031              CMPW    R0, #7                                    ; 4456
                                                    15   13 00034              BEQL    4$                                        ;
                                        00D6        C7   B5 00036              TSTW    QUEUE_FAB+2                               ; 4459
                                                    08   12 0003A              BNEQ    3$                                        ;
                                50 00048078         8F   D0 0003C              MOVL    #295032, R0                               ;
                                                         04 00043              RET                                               ;
                        00000000G   EF              00   FB 00044 3$:          CALLS   #0, LOCK_QUEUE_FILE                       ; 4460
                            11D4    C8              00   FB 0004B 4$:          CALLS   #0, PROCESS_GETQUI_ITEM_LIST              ; 4466
                                01                  50   E8 00050              BLBS    STATUS_1, 5$                              ; 4467
                                                         04 00053              RET                                               ;
                                50                  67   D0 00054 5$:          MOVL    MBX, R0                                   ; 4472
                                            28      A0   DD 00057              PUSHL   40(R0)                                    ;
                            123E    C8              01   FB 0005A              CALLS   #1, FIND_GQC                              ;
```

```
                                                
```

```
;  3508          4523  1 GLOBAL ROUTINE DELETE_GETQUI_CONTEXT(PID): NOVALUE=
;  3509          4524  1
;  3510          4525  1 !++
;  3511          4526  1 !
;  3512          4527  1 ! FUNCTIONAL DESCRIPTION:
;  3513          4528  1 !       This routine deletes the $GETQUI context block for a process, if one
;  3514          4529  1 !       exists, when the process deletion message is received.
;  3515          4530  1 !
;  3516          4531  1 ! INPUT PARAMETERS:
;  3517          4532  1 !       PID             - Process ID.
;  3518          4533  1 !
;  3519          4534  1 ! IMPLICIT INPUTS:
;  3520          4535  1 !       NONE
;  3521          4536  1 !
;  3522          4537  1 ! OUTPUT PARAMETERS:
;  3523          4538  1 !       NONE
;  3524          4539  1 !
;  3525          4540  1 ! IMPLICIT OUTPUTS:
;  3526          4541  1 !       NONE
;  3527          4542  1 !
;  3528          4543  1 ! ROUTINE VALUE:
;  3529          4544  1 !       NONE
;  3530          4545  1 !
;  3531          4546  1 ! SIDE EFFECTS:
;  3532          4547  1 !       NONE
;  3533          4548  1 !
;  3534          4549  1 !--
;  3535          4550  1
;  3536          4551  2 BEGIN
;  3537          4552  2 LOCAL
;  3538          4553  2         GQC:            REF BBLOCK;     ! Pointer to $GETQUI context block
;  3539          4554  2
;  3540          4555  2
;  3541          4556  2 ! Locate the $GETQUI context block.
;  3542          4557  2 !
;  3543          4558  2 GQC = FIND_GQC(.PID);
;  3544          4559  2 IF .GQC NEQ 0
;  3545          4560  2 THEN
;  3546          4561  3     BEGIN
;  3547          4562  3     UPDATE_GETQUI_LOCKS(.GQC, 0);
;  3548          4563  3     DEALLOCATE_MEMORY(.GQC);
;  3549          4564  2     END;
;  3550          4565  1 END;


                                        0004 00000      .ENTRY  DELETE_GETQUI_CONTEXT, Save R2          ; 4523
                                  04    AC   DD 00002   PUSHL   PID                                     ; 4558
                        FECE      CF        01   FB 00005   CALLS   #1, FIND_GQC                      ;
                                  52        50   D0 0000A   MOVL    R0, GQC                           ;
                                            12   13 0000D   BEQL    1$                                ; 4559
                                            7E   D4 0000F   CLRL    -(SP)                             ; 4562
                                            52   DD 00011   PUSHL   GQC                               ;
                        EC82      CF        02   FB 00013   CALLS   #2, UPDATE_GETQUI_LOCKS           ;
                                            52   DD 00018   PUSHL   GQC                               ; 4563
```

```
                    00000000G  EF          01  FB 0001A                CALLS   #1, DEALLOCATE_MEMORY
                                               04 00021 1$:             RET                                 ;
                                                                                                            ; 4565

; Routine Size:  34 bytes,    Routine Base:  CODE + 1642
```

```
;  3552     4566  1 GLOBAL ROUTINE DELETE_OPEN_GETQUIS: NOVALUE=
;  3553     4567  1
;  3554     4568  1 !++
;  3555     4569  1 !
;  3556     4570  1 ! FUNCTIONAL DESCRIPTION:
;  3557     4571  1 !       This routine deletes all context associated with open $GETQUI operations
;  3558     4572  1 !       when the queue file is closed.
;  3559     4573  1 !
;  3560     4574  1 ! INPUT PARAMETERS:
;  3561     4575  1 !       NONE
;  3562     4576  1 !
;  3563     4577  1 ! IMPLICIT INPUTS:
;  3564     4578  1 !       NONE
;  3565     4579  1 !
;  3566     4580  1 ! OUTPUT PARAMETERS:
;  3567     4581  1 !       NONE
;  3568     4582  1 !
;  3569     4583  1 ! IMPLICIT OUTPUTS:
;  3570     4584  1 !       NONE
;  3571     4585  1 !
;  3572     4586  1 ! ROUTINE VALUE:
;  3573     4587  1 !       NONE
;  3574     4588  1 !
;  3575     4589  1 ! SIDE EFFECTS:
;  3576     4590  1 !       NONE
;  3577     4591  1 !
;  3578     4592  1 !--
;  3579     4593  1
;  3580     4594  2 BEGIN
;  3581     4595  2
;  3582     4596  2 ! Delete active $GETQUI context blocks.
;  3583     4597  2 !
;  3584     4598  2 WHILE .OPEN_GETQUI_LIST NEQ 0 DO
;  3585     4599  3     BEGIN
;  3586     4600  3     LOCAL
;  3587     4601  3         GQC:            REF BBLOCK;     ! Pointer to $GETQUI context block
;  3588     4602  3
;  3589     4603  3
;  3590     4604  3     GQC = .OPEN_GETQUI_LIST;
;  3591     4605  3     OPEN_GETQUI_LIST = .GQC[GQC_LINK];
;  3592     4606  3     DEALLOCATE_MEMORY(.GQC);
;  3593     4607  2     END;
;  3594     4608  2
;  3595     4609  2
;  3596     4610  2 ! Delete active $GETQUI lock blocks.
;  3597     4611  2 !
;  3598     4612  2 WHILE .GQL_ACTIVE_LIST NEQ 0 DO
;  3599     4613  3     BEGIN
;  3600     4614  3     LOCAL
;  3601     4615  3         GQL:            REF BBLOCK;     ! Pointer to $GETQUI lock block
;  3602     4616  3
;  3603     4617  3
;  3604     4618  3     GQL = .GQL_ACTIVE_LIST;
;  3605     4619  3     GQL_ACTIVE_LIST = .GQL[GQL_LINK];
;  3606     4620  3     $DEQ(LKID=.GQL[GQL_LKID]);
;  3607     4621  3     CH$COPY(4, GQL_FREE_LIST, 0, GQL_K_LENGTH, .GQL);
;  3608     4622  3     GQL_FREE_LIST = .GQL;
```

```
;  3609          4623  2     END;
;  3610          4624  1 END;


                                                    00FC 00000          .ENTRY  DELETE_OPEN_GETQUIS, Save R2,R3,R4,R5,R6,R7 ; 4566
                                  57 00000000'      EF   9E 00002       MOVAB   OPEN_GETQUI_LIST, R7                        ;
                                  50                67   D0 00009 1$:   MOVL    OPEN_GETQUI_LIST, R0                        ; 4598
                                                    0E   13 0000C       BEQL    2$                                          ;
                                  67                60   D0 0000E       MOVL    (GQC), OPEN_GETQUI_LIST                     ; 4605
                                                    50   DD 00011       PUSHL   GQC                                         ; 4606
                          00000000G   EF            01   FB 00013       CALLS   #1, DEALLOCATE_MEMORY                       ;
                                                    ED   11 0001A       BRB     1$                                          ; 4598
                                  50        FC      A7   D0 0001C 2$:   MOVL    GQL_ACTIVE_LIST, R0                         ; 4612
                                                    22   13 00020       BEQL    3$                                          ;
                                  56                50   D0 00022       MOVL    R0, GQL                                     ; 4618
                                      FC    A7      66   D0 00025       MOVL    (GQL), GQL_ACTIVE_LIST                      ; 4619
                                                    7E   7C 00029       CLRQ    -(SP)                                       ; 4620
                                                    7E   D4 0002B       CLRL    -(SP)                                       ;
                                        0C  A6      DD   0002D       PUSHL   12(GQL)                                     ;
                          0000000CG   00            04   FB 00030       CALLS   #4, SYS$DEQ                                 ;
            10        00        F8    A7          04   2C 00037       MOVC5   #4, GQL_FREE_LIST, #0, #16, (GQL)           ; 4621
                                                    66       0003D      ;
                                  F8    A7          56   D0 0003E       MOVL    GQL, GQL_FREE_LIST                          ; 4622
                                                    D8   11 00042       BRB     2$                                          ; 4612
                                                        04 00044 3$:    RET                                                 ; 4624

; Routine Size:  69 bytes,    Routine Base:  CODE + 1664
```

```
; 3612          4625  1 END
; 3613          4626  0 ELUDOM


                                                        .EXTRN  LIB$SIGNAL

;                               PSECT SUMMARY
;
;       Name                    Bytes                   Attributes
;
;  COMMON                         5024  NOVEC,  WRT,  RD ,NOEXE,NOSHR,  LCL,  REL,  OVR,NOPIC,ALIGN(2)
;  CODE                           5801  NOVEC,NOWRT,  RD ,  EXE,NOSHR,  LCL,  REL,  CON,NOPIC,ALIGN(2)


;                           Library Statistics
;
;                                    -------- Symbols --------      Pages       Processing
;       File                         Total    Loaded   Percent      Mapped      Time
;
;  _$255$DUA28:[SYSLIB]LIB.L32;1      18619       256         1      1000          00:01.4



;                                       COMMAND QUALIFIERS

;       BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/LIS=LIS$:GETQUI/OBJ=OBJ$:GETQUI MSRC$:GETQUI/UPDATE=(ENH$:GETQUI)

; Size:          4651 code + 6174 data bytes
; Run Time:         01:22.0
; Elapsed Time:     04:53.2
; Lines/CPU Min:     3384
; Lexemes/CPU-Min:  37641
; Memory Used:  696 pages
; Compilation Complete
```

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